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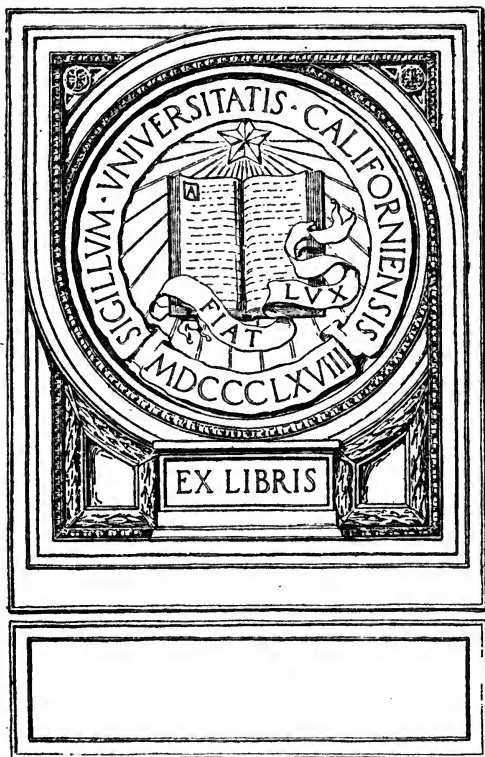
WAR ON THE SEA

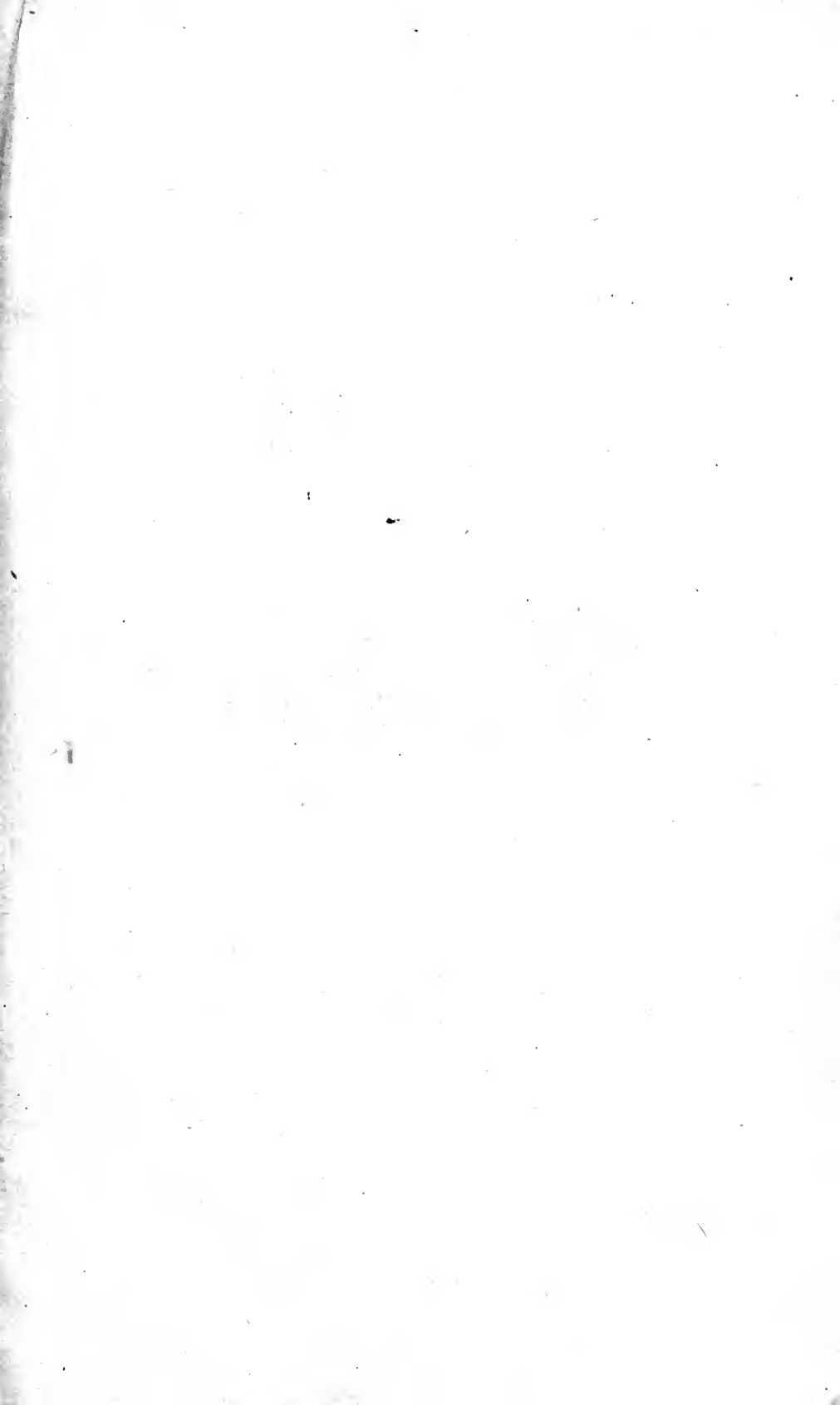
By GABRIEL DARRIEUS

Translated by

PHILIP R. ALGER

GIFT OF
Summer Session
(Southern division)



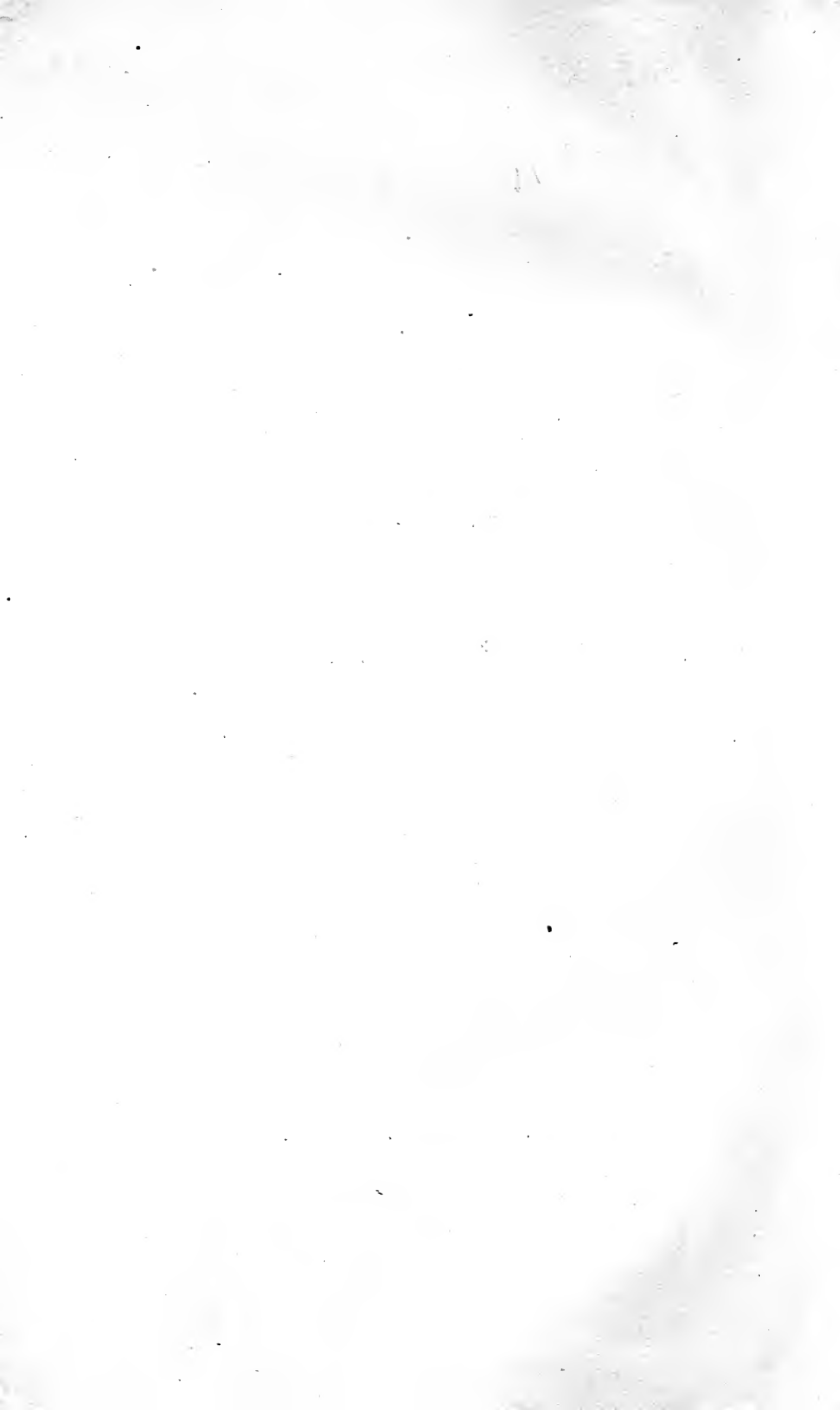


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WAR ON THE SEA



WAR ON THE SEA

STRATEGY AND TACTICS

BY

Gabriel DARRIEUS

CAPTAIN, FRENCH NAVY

Professor of Strategy and Naval Tactics at the Naval War College

Basic Principles

*Experience is the sole test
of truth*

TRANSLATED BY
PHILIP R. ALGER
PROFESSOR, U. S. N.

ANNAPOLIS, MD.
THE UNITED STATES NAVAL INSTITUTE
1908

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Gift of Summer Session
(Southern division)

TRANSLATOR'S PREFACE.

In translating Captain Darrieus' interesting work, I have endeavored to adhere as closely to his forms of expression as was compatible with the conveyance of the meaning in English. It would perhaps have been better to have merely tried to put into English the full sense of the French, regardless of actual phrases used; at all events I should thus have avoided sentences which, in English at least, seem unnecessarily tautological.

It may be well to state that the French expression which I have translated "Basic Principles" is "La Doctrine." "The Doctrine" would perhaps express the meaning better, but that seemed to have something of a theological flavor.

With two or three minor exceptions, quotations from the English have been traced to their source, and are given in their original form instead of being re-translated from the French into English.

My attention has been called to the fact that the author's statement regarding the *Minnesota* and *New Ironsides* (page 87) is incorrect; those two vessels were injured but not sunk by torpedo explosions.

ANNAPOLIS, MD., June, 1908.

TABLE OF CONTENTS.

INTRODUCTION.

OBJECT OF THE COURSE. STATEMENT OF ITS PROGRAM.....	5
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CHAPTER I.

THE MILITARY ART OF ALEXANDER, OF HANNIBAL, OF CÆSAR, OF FRED- ERICK THE GREAT, AND OF NAPOLEON; THE NAVAL STRATEGY OF NAPOLEON	26
Alexander	27
Hannibal	30
Cæsar	35
Frederick the Great.....	38
Napoleon	40
Napoleon's Naval Strategy.....	45

CHAPTER II.

AN HISTORICAL STUDY OF THE STRATEGY AND TACTICS OF DUQUESNE, TOURVILLE, SUFFREN, AND NELSON.....	55
Duquesne	55
Tourville	57
Suffren	63
Nelson	70

CHAPTER III.

THE AMERICAN CIVIL WAR. THE ITALIAN WAR (LISSA). CHILE AND PERU. ADMIRAL COURBET'S CHINA CAMPAIGN. CHINA AND JAPAN	81
American Civil War.....	81
Italian War (Lissa)	88
War between Chile and Peru.....	94
Admiral Courbet's Campaign.....	96
War between China and Japan.....	102

CHAPTER IV.

THE WAR BETWEEN SPAIN AND THE UNITED STATES.....	109
Spain's Strategic Error.....	109
The Spanish Forces.....	113
Cervera's Squadron	117
Conduct of the Americans.....	128
Blockade of Santiago.....	132
The Spanish Squadron's Sortie.....	136
Popular Opinion of the Function of Fleets.....	138

TABLE OF CONTENTS.

CHAPTER V.

THE WAR BETWEEN RUSSIA AND JAPAN.....	141
Russia's Political Strategy.....	142
The Japanese Offensive.....	151
Events at Chemulpo.....	153
Submarine Mines	155
Attempts to Bottle up the Fleet in Port Arthur.....	156
The Vladivostok Cruisers.....	157
The Sortie of August 10.....	162
The Second Pacific Squadron.....	175
Battle of Tsushima.....	181

CHAPTER VI.

RESUMÉ OF THE LESSONS OF HISTORY. OBJECTIVES OF WARS. THE RÔLE OF FLEETS. THE VALUE OF THE OFFENSIVE. BLOCKADE. COMMAND OF THE SEA.....	195
The Objectives of Wars.....	197
The Offensive	203
Command of the Sea.....	208
Blockades	212
The Principal Objective.....	214

CHAPTER VII.

PROOF OF THE EXISTENCE OF A BODY OF FUNDAMENTAL DOCTRINES. OPINIONS OF MILITARY AND NAVAL WRITERS.....	224
Jomini	225
Clausewitz	228
Rustow	232
Von der Goltz.....	239
Mahan	244
The English Tradition.....	248
The French System.....	250
Necessity for an Initial Doctrine.....	252

CHAPTER VIII.

GENERAL POLICY OF PEOPLES, ITS CLOSE CONNECTION WITH STRATEGY. APPLICATION TO THE FRENCH NAVY. HEREDITARY ADVERSARIES. ENGLISH POLICY. GERMAN POLICY. NEW NATIONS.....	255
The British Policy.....	256
The Downfall of Spain.....	258
The Rivalry with Holland.....	260
The Contest with France.....	263
The Modern Carthage.....	274
The Franco-German Feud.....	277
The American Cloud.....	281
The Yellow Peril.....	285

TABLE OF CONTENTS.

CHAPTER IX.

PREPARATION FOR WAR; ITS PRINCIPAL DIVISIONS. WEAPONS AND THEIR EMPLOYMENT. PROBLEM OF THE FIGHTING FLEET. NAVY YARDS, ETC.	289
- The Preparation of Weapons. The Gun.....	292
The Torpedo	295
The Ram	296
The Fighting Ship.....	296
Fleets	299
Tactical Exercises	303
Navy Yards	305
Coast Defence	308
Advanced Bases	310
Plans of Operations.....	311
Mobilization	317
Combined Operations	318
Conclusions	319

WAR ON THE SEA.

By CAPTAIN GABRIEL DARRIEUS, French Navy,

Translated by PHILIP R. ALGER, Professor, U. S. Navy.

INTRODUCTION.

Yielding to the friendly solicitations of a very large number of my comrades of all grades in the navy, I have decided to publish the substance of the general ideas which I have already set forth at the Naval War College.

Furthermore it seemed to me to be a propitious time to make

ERRATA.

- P. 9, 1st line. Read *its* for *his*.
- P. 10, 30th line. Read *Clausewitz* for *Clausevitz*.
- P. 17, 38th line. Insert *of* after *tactics*.
- P. 63, 28th line. Read *Far* for *far*.
- P. 68, 29th line. Read *advanced base* for "point d'appui."
- P. 73, 17th line. Read *Gibraltar* for *Gibralter*.
- P. 83, 39th line. Read *rough* for *roughed*.
- P. 87, 26th line. Read "guerre de course" for "commerce destroying."
- P. 125, 21st line. Read *exercised* for *experienced*.
- P. 129, Footnote. Read *Suffren* for *Sufferen*.
- P. 134, 11th line. Read *torpedoes* for *torpedos*.
- P. 153, 16th line. Read *three* for *their*.

conferences in the name of the Naval League, Admiral Charles Beresford was uttering loud protests and complaints on professional subjects in the journals and at public meetings without any attempt on the part of the Admiralty to interfere in the slightest degree with his freedom of speech.

Such an attitude is justified by the importance which the British Admiralty has always attached to the education of public

ALPHA

1. The first of the three main parts of the book is devoted to a general survey of the history of the subject. This part is written in a very clear and concise manner, and is well illustrated by numerous examples. It is a most valuable introduction to the study of the subject, and is well worth reading by all who are interested in the history of the subject.

2. The second part of the book is devoted to a detailed study of the various methods of the subject. This part is written in a very clear and concise manner, and is well illustrated by numerous examples. It is a most valuable introduction to the study of the subject, and is well worth reading by all who are interested in the history of the subject.

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By CAPTAIN GABRIEL DARRIEUS, French Navy.

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INTRODUCTION.

Yielding to the friendly solicitations of a very large number of my comrades of all grades in the navy, I have decided to publish the substance of the general ideas which I have already set forth at the Naval War College.

Furthermore, it seemed to me to be a propitious time to make at least one seaman's voice heard, in the passionate debate now going on about the principles of naval warfare. It is curious, indeed, to note that officers are vainly to be sought among the many spokesmen of the two opposing parties, which are daily strengthened by new recruits and sit in judgment on a technical question of vital concern to the nation.

Unless it can be shown that naval men are incompetent to discuss their own profession, we cannot admit that they alone should remain silent in regard to the principles which ought to govern the constitution of the fleet.

There is much to be done in France in the way of freeing the voices and pens of naval officers from the strict rules which limit them in the great field of discussion of naval affairs. The English government sets us a very good example in this respect, as it always does where naval matters are concerned. At the very moment when, a few years ago, we gave to certain officers, with extreme parsimony and under many restrictions, authority to hold conferences in the name of the Naval League, Admiral Charles Beresford was uttering loud protests and complaints on professional subjects in the journals and at public meetings without any attempt on the part of the Admiralty to interfere in the slightest degree with his freedom of speech.

Such an attitude is justified by the importance which the British Admiralty has always attached to the education of public



WAR ON THE SEA.

opinion in regard to all maritime questions, and also by the very clear perception that the ideas expressed by an officer, however eminent, commit no one but himself, and have only the exact value which people are willing to give to them.

There is no doubt that we must attribute to the fixed rule of silence, imposed even now upon our experts, the unfortunate fact that, in our country alone, first principles are constantly being questioned and the same sterile discussions are periodically renewed.

Our lack of method is the only possible explanation of the fact that the plainest teachings of recent naval wars are interpreted in France differently from anywhere else, and often in a manner contrary to common sense.

And perhaps some of the blame must be placed upon the navy itself, on account of its confused ideas about maritime questions, its mental disunion, and, to sum all, its absolute lack of a body of doctrine in regard to naval warfare.

Only a few years ago it was a common saying that "As many naval officers, so many different opinions on any professional subject." Very recently, relative to a definite establishment of the Torpedo School, two reports, made at short intervals to explain requests for funds, each contained a phrase intended to lay down a principle of fundamental importance. "*The School must be on board ship*" said one; and the other, a few months later, "*The School must be on shore.*"

This real professional anarchy, which alienated much of the sympathy naturally belonging to the navy, was due to two principal causes: in the first place, naval material has been so radically transformed during the last fifty years that in no other industrial development has there been such an overturning; in the second place, there has been a total absence of instruction in the art of modern war. Actually, we may consider these two causes to be but one. Naval constructions have been altered with feverish haste to keep pace with industrial progress, before the diverse conceptions upon which they were built, out of fashion ere used, could find justification in the essential basis of truth, *experience*.

From the beginning of modern fleets to Tsushima there had been few or no naval battles worthy of the name. In the study here undertaken, leaving out of account the Russo-Japanese war, we shall be able to develop some special facts, but for our con-

WAR ON THE SEA.

clusions we shall have to depend at least as much upon logical reasoning and common sense as upon experimental data.

This explains and to some extent justifies the lack of clearness of naval ideas—what this was scarcely ten years ago can best be imagined by recalling the mental state of those in command of our army before 1870. The same lack of a theory of war; the same misunderstanding of the exigencies of modern war material and of the management of large forces of men; the same blind and fatal faith in the disentanglement of affairs on the battle field.

To show that I state nothing not rigorously true, it will suffice to recall that but a few years ago our signal books were encumbered with chapters relating to the manœuvres of fleets under sail, when masts had long been discarded. At a date also recent, provision was made at general quarters for calling away boarders, and I am not sure but what exercises are still carried on upon some of our ships to meet this quite impossible contingency.

Our disasters in 1870 have at least taught us the worth of long and patient preparation for war; that, wanting the genius of a Napoleon, the untiring work of a Moltke, based on reason and method, and leaving nothing to chance, can lead to victory. The army has profited by the lesson of that terrible year, to the great good of our country: would it really be too much to hope that the navy may obtain as favorable a result without a naval Sedan?

That same Moltke said, towards the end of his life, "*Our campaigns and our victories have instructed the French, who, like us, have numbers, armament and courage. Our strength will be in management, in leadership, in one word in the General Staff. This strength France may envy us, she does not possess it.*"

The creation of the Naval War College was the first step towards a general staff, as necessary in the preparation for naval war as in that for a war on land, and which must be realized some day, when minds are better prepared for it, after several generations of officers have passed through the college.

The most pressing need, as a matter of fact, is to co-ordinate ideas, to examine rigorously all the various opinions current in regard to naval affairs, and to retain the very small number of facts which can be admitted to be true, to serve as the basis of a doctrine which the future and a better established teaching should little by little enrich. Thus we can each contribute to the common work which, growing little by little, will in the near future be so

WAR ON THE SEA.

mighty as to overcome all opposition and destroy even the memory of the obscurities of the past.

To make every one perceive as strongly as I do the necessity for this great work of unifying professional ideas in our navy and making them precise, it will be enough to cite a single instance.

At the beginning of 1898, the Superior Naval Council, come together to draw up a shipbuilding program, decided that France needed, besides battleships, a fleet of twelve armored cruisers. Why twelve? The minutes of the meeting are silent as to the reasons for this conclusion. Some months, I might even say some weeks later, at a new meeting of the Council, held for quite another purpose, a member observed that the number of armored cruisers formerly voted seemed to him insufficient, especially in view of the exigencies of our colonial policy, and he proposed to increase the number to twenty-four. After a confused discussion, the Council pronounced for eighteen. No serious argument was advanced for that number any more than for the others.

Although I have not yet touched upon even the most elementary notions of strategy and tactics, which are to be the subjects of my work, it must be apparent that questions of warfare should not be settled by sentiment. And let it here be said, once for all, that there is no question of persons. Men are nothing, ideas alone concern us.

This example shows better than any argument how much we lacked even elementary knowledge of naval affairs only a few years ago. Among the complex problems to which the idea of strategy gives rise, there is none more important than that of the constitution of a fleet, and it goes without saying that every project which takes account neither of the foreign relations of a great nation nor of the material limit fixed by its resources, of necessity rests upon a weak and unstable base.

The end and aim of the War College, as well as of this work, is to build up a military system upon solid and enduring foundations. Surely to attain this result, a lofty aim is necessary; moreover, to repeat a happy phrase used elsewhere, I shall take care to exclude from the subjects treated everything which does not have war for its object. It was in obedience to this precise thought that the founder of the college, M. E. Lockroy, the Minister of 1895-1896, gave it the name of Naval *War* College. He wished thus to indicate the primary importance which he attached to making the

great and fruitful concept of war the ever guiding star of his labors.

Whatever may be the interest attaching to the different problems raised by naval questions, the aggregation of which gives to the naval organization its complex character, I utter only the exact truth when I affirm that those of strategy and of naval tactics are its master key and best express its essence. We can foresee that still far off moment when, by an at last realized general agreement of ideas, all other problems will lend themselves to the solution of this fundamental problem of the military art. It is that which will form the strong roots by which the general growth will be nourished.

And, first, let it be well understood that there can be no question of defining by rules the means of obtaining victory. I fully agree with Commander Rouyer's words, "*Victory is not taught, any more than genius is acquired by study.*"

But, by resting satisfied with this somewhat deceptive truth—and far too long we have been content to accept it as an excuse for culpable negligence and detestable lack of energy—a people hypnotized into expecting the providential appearance of a saving genius runs the risk of being almost certainly haled to defeat. Genius is not needed to prepare for war; to concentrate the national forces; to provide, in time of peace, arms, ships, personnel, the necessary stores; in a word, to study, without leaving anything to chance, how best to use these resources so that at the hour of danger, and at the point of danger, there shall be the greatest number of favorable chances. If, other things being equal, a great military leader then appears, he will be welcome, but he will be so much the more sure of victory as, in the matter of improvisations, none are demanded of him but those of the battle itself.

The present work has for its object the exposition of the rational general method which should guide us in preparing for war. And, in the first place, what signification should we give to the words strategy and tactics?

If one considers their etymologies, the Greek word *στρατεία* means "military expedition," "campaign"; from *στρατηγία*, "ruse de guerre," a French word having the same meaning has been made, "stratagème," and this corresponds to the intuitive idea which we attach to the word strategy. *Τακτική*, tactics, is derived from *τακτικός*, "regulated," "regular," that which re-

lates to regulated movements, to manœuvres on the field of battle. Τακτικὸι ἄριθμοι, regular lines of battle (Xenophon).

In fact, and without arguing from examples in the animal kingdom, where "ruses de guerre" are the general rule, the ideas of strategy and of tactics are as old as humanity itself.

From the day when two men of unequal muscular strength engaged in a struggle to settle their quarrel, arms were invented. To compensate for his natural inferiority, the weaker naturally seized a weapon, the first thing to hand, a stone, the branch of a tree, and that not being enough to re-establish an equality of force, he has been obliged to surprise the secret weaknesses of his adversary; to endeavor to attack him at the moment most unfavorable for him, in a word, to use stratagem with him.

If, with the constant progress of human industry, the material conditions of strife have changed, causes and principles have remained the same. And, when one examines the facts to discover their philosophy, it appears that the continued improvements in war material throughout the ages have had no other origin and no other motive than the natural desire of the weak to sustain himself against the degrading and odious tyranny of brute strength.

There is no general agreement as to the line of demarcation between the two fundamental divisions of the military art. Where does strategy end, and where begins tactics?

In the 1892-1893 conferences at the Army War College, General Bonnal called attention to the definitions, unlike in words rather than in sense, adopted by military writers of authority in such matters. Napoleon never used the word strategy; sometimes he used the expression *grand tactics*, sometimes the term *higher branches of war*.

Clausevitz defined strategy as *the use of battle in war*; tactics as *the use of troops in battle*.

For Jomini, strategy includes all that goes on in the theater of war, while tactics is the art of fighting on a field of battle.

According to Moltke, *strategy shows the best way leading to the battle; it tells WHERE and WHEN one ought to fight. Tactics teaches how to use the different arms in fighting; it tells HOW one ought to fight.*

General Bonnal summed up these different views in the following excellent definitions: *Strategy is the art of conceiving; tactics is the science of executing.*

WAR ON THE SEA.

If thus far we have considered only definitions relating to the manœuvres of armies, there is hardly need to point out that they apply equally well to the operations of fleets. The terms of strategy and tactics are connected with abstract ideas, true whatever may be the means of execution.

Thus Mahan, in agreement with most military writers, fixed the line of separation between strategy and tactics at the point where the two hostile forces come into *contact*. But it must be clearly understood that the expression "contact" is not to be taken literally, implying within sight, at short distance, etc. There is really contact between two hostile warlike forces when they know each other's positions with such exactness that their encounter, the final object of the war, is unavoidable.

I shall not linger over discussions of words, and if I have thought it well to recall the various opinions on this subject, it is because it is above all important to thoroughly understand each other.

Adopting from now on language as concise and exact as possible, and remembering that in the main the etymology of the words expresses their sense, the word *strategy* henceforth will convey the idea of *preparation* for fighting, and the word *tactics* that of the *execution* of the fighting.

I shall begin with the study of strategy: if I have succeeded in well expressing my thoughts, in the matter of definitions, it will at once be apparent that this will form the most important part of the work. The tragic facts of real life, to which we shall refer in detail further on, show us that if the wisest tactical combinations of the battle field can be destroyed or crowned with success in a few hours, if that success is most often dependent upon the spontaneous inspirations of a leader, the strategical preparation for war cannot be improvised. It is the fruit of long and patient meditations, of far sighted measures taken long in advance and requiring slow but unbroken effort through many years.

In fact, strategy touches upon all the problems of war; it is their very soul; its field of action is unlimited, and many volumes could be devoted to it without coming near to exhausting the subject.

Before examining in detail, in a book intended for publication, all the points which strategy bears upon, I quite naturally put to myself the question: *How ought one to conceive the strategy of*

modern fleets? For a reply, I remembered those words of an illustrious philosopher, Taine, in his admirable work on the Origins of Contemporary France: "*What is Contemporary France? To reply to this question, it is necessary to know how this France arose, or, what is better, to assist as a spectator at its formation.*"

It is just so of strategy, as well as of general tactics; these two foundations of the military art being as old as the world, if we wish to understand their actual requirements, it is impossible to leave out of consideration their past, their evolution through the ages, and their adaptation to incessantly changing weapons.

This study is so much the more necessary in France, and particularly in the French navy, because, as we have already seen, in the absence of any continuity of action and of clear sighted direction, our preparation for war has most often been the work of pure chance.

It is to the teachings of history, then, that I shall have recourse in beginning the study of strategy. This method is legitimate, for it is reasonable to suppose that, besides their flashes of genius, the great captains of all times have owed their victories to some general rules, some wise dispositions, which we may well hope to be able to apply to modern wars.

Understand once again that it is not at all my idea to develop a code, consisting of a certain number of precise rules, by the strict application of which upon the field of battle victory may be surely won. My aim is more modest and not less useful; it is to seek in the past some general indications capable of guiding a great leader, *other things being equal*, to success.

Those who are able to perceive all the profit which may be derived from the study of the history of great wars will have a well founded confidence in the success of this endeavor.

"*The value of troops actually depends more upon the value of their chiefs than it used to,*" writes Von der Goltz. And he adds: "*It is not only important to inquire what qualities a man must have to do great things, as a commander-in-chief, but it is needful also to inquire what the conditions surrounding the army and the military organization must be in order that it may be possible for great war leaders to appear.*"

To decide what these conditions are, we must go back to the beginnings, to the very sources of military history.

"*The principles of war,*" said Napoleon, "*are those which have*

WAR ON THE SEA.

guided the great captains of whom history has handed down to us the high deeds." And did he not also write, "*Knowledge of the higher branches of war is only to be acquired by experience and by the study of the history of the wars and battles of great captains.*"

Are not the important works of Clausewitz and of Jomini wholly based upon the study of the great Napoleonic drama?

The latter military writer expressed himself as follows: "*In great strategic operations, as well as in great battle combinations, victory would result to-day, as it always has resulted, from the application of the principles which led to success the great captains of all times, Alexander or Cæsar, Frederick or Napoleon.*" Similarly, referring more particularly to naval affairs, Mahan says: "*There is a substantial agreement among professional writers that, while many of the conditions of war vary from age to age with the progress of weapons, there are certain teachings in the school of history which remain constant, and being, therefore, of universal application, can be elevated to the rank of general principles.*"

Without for an instant losing sight of our higher aim, which is and always will be *war*, we shall seek in history for the ensemble of those general principles of the military art to which the writers cited above allude. After a hasty sketch of the military campaigns of Alexander, Hannibal, Cæsar and Napoleon, we shall look for guidance more particularly in maritime wars. Those of the American Revolution and of the first Empire, on account of the great seamen who made them illustrious, will in the first place engage our attention. In modern times, the War of the Rebellion, that of Italy in which Lissa took place, the Chili-Peruvian wars, Admiral Courbet's campaign, the China-Japan conflict, and that between Spain and the United States, will furnish material for very interesting conclusions, because the material used in these successive wars comes much nearer to what is now used than that of older times. Finally, after this rapid view, we shall devote an entire chapter to the Russo-Japanese war, not so much because of its actual events, as on account of the valuable lessons of all sorts that it furnishes. Imperfectly known as it still is, at least in details, its general character is already sufficiently well outlined to enable us to state that very few among the wars of the past can furnish a more ample harvest of lessons to be pondered. And when I speak of profitable lessons, I am not thinking of models

WAR ON THE SEA.

to be followed, but much rather of accumulated errors which it would be well for us to be able to avoid committing in our turn.

May we, above all we of the French navy, be able to draw profit from the faults of all sorts committed by Russia! And it is because this war, a veritable lesson in affairs, offers us instruction in strategy and tactics by practical examples, that I give to it a special importance.

To prevent this study of the past from remaining sterile, we must sum up the conclusions at which we gradually arrive, and provide ourselves as it were with a compact *vade mecum* of the small number of doctrines which the sequence of events shall not have invalidated.

Then will begin our much more difficult task, as well as most interesting: to apply the teachings of the past to actual navies, and especially to the French navy. And I feel so much the importance of this problem that I would not have hesitated to attack it in the first chapter, if I had not been fully convinced that thus treated, and without previous knowledge of derivations, this study would have been too artificial. If the satisfaction felt in it is postponed for a few short chapters, the results will be the better.

But from the moment that the problem of war, thus far abstractly viewed, resolves itself into a concrete case, that of the French navy for example, the mind necessarily reverts to given facts which seem to have a prejudicial character. Common sense and reason indicate that a given nation, a given navy, ought to foresee, to prepare its forces in view of well determined aims. The general problem of war admits only of a series of solutions applicable to well defined concrete cases rather than a single solution good for all possible conflicts. It is evident that, between the extreme cases where the adversaries are respectively an exclusively naval power and another having only land forces, there is room for all the combinations of the preparation for naval war.

Thus is revealed the clear conception of the necessity of a foreign policy which shall be the inspiring cause of strategy, and, actually, the latter, with the operations which it entails, is so closely tied to the former that it is not possible to sketch the least plan of war without a perfect knowledge of political objectives, of ends pursued, of possible alliances, etc.; the field is immense.

And it is precisely because the field is so vast, that strategy must

WAR ON THE SEA.

have an initial point of departure and a final end, that there is an imperative moral obligation upon those in power to point them out.

It would be superfluous to insist upon the fact that, being in no way the recipient of such confidences, I shall be unable to indicate with precision the point of departure and that of arrival of French foreign policy. As we must nevertheless reason about concrete examples, we shall be forced to make hypotheses. And in order to give the maximum likelihood to the choice of these examples, I shall devote a chapter to the discussion of the political situation of France, first as related to what we may call her traditional enemies, by reason of the numerous wars or quarrels with them throughout the past, like England and Germany, and then as related to new nations, active and restless, whose desires of all kinds are becoming disquieting, the United States, Japan, etc. Nor shall we forget, among the prime causes of war, the bitter commercial strife in which all civilized nations are now engaged for the conquest of the world's trade, and the pacific appearance of which masks a threatening future.

It is chiefly when thinking of this chapter of the book that I feel my total incompetence; much time, and above all more ability than I possess, would be required to succeed in convincing all Frenchmen, and especially officers, that the two terms, foreign policy and strategy, are bound together by an indestructible link.

However weak and hypothetical may be the ideas that I shall develop, they will at least have the advantage of furnishing a solid ground for discussion, allowing a precise demonstration of how the objectives of a war are connected with the projects of the government. I shall have shown the method, and that will do for the moment.

The first question that suggests itself is evidently that of the tool to be used, that is to say of the fighting fleet which best corresponds to the chosen and definitely adopted policy. It is moreover clear that this problem of the constitution of the fighting fleet, the most important of all which are raised by the study of preparation for war, allows of an infinity of solutions, among which two different nations will choose according to their needs or their special tastes.

We are concerned, then, with a study than which there is none more serious or more profound, and the combined efforts of all the people of a country would not be too much properly to conduct it.

WAR ON THE SEA.

In the first place, and before any other inquiry, it is essential to determine the conditions which should be fulfilled by the different arms which the developments of modern industries place at the seaman's disposal.

On this subject, I recall a remark, which I noted as particularly suggestive, among the numerous questions asked of me, regarding my way of understanding a study of strategy. "*You will evidently not have to concern yourself with ordnance,*" was said to me incidentally. I confess that this proposition quite struck me dumb. Who then should be concerned about ordnance, if not the writer who proposes to elucidate for naval officers the requirements of strategy and of tactics?

The art of preparation for war does not consist solely of putting to work and utilizing existing military resources; one of its branches, and not the least, consists of a complete study of future resources, which measure up to military needs in proportion as we exert ourselves to meet them.

Who then should be qualified to set the problem, if not the office charged with this preparation for war, the one which we at once think of in connection with the idea of strategy and tactics, the General Staff?

I am aware that a certain school, having quite a large number of adherents in France, conceives of the directing military authority as an assemblage of little groups, independent of one another, each charged with a fraction of the military task, but without any unifying principle to co-ordinate the fractions and give life to the whole. If this conception pleases so many minds, enamored of individualism, it is because they see in it an ideal sort of classification, each question thoroughly and separately considered, by a special office, with no other thought than the constant perfecting of each arm or each tool, and then, as it were, methodically catalogued in an always open index.

This bureaucratic idea is not mine, because the cultivation of general ideas, which alone are fruitful and vivifying, is wanting to it; but the question is a higher one. Does it respond exactly and faithfully to the set military problem? And, turning to the constructor, I ask of him: "*Have you been furnished with the list of requirements which must be satisfied?*" And going further: "*Have you demanded it of the sole directing office, qualified to furnish it? If this has not been done, then the solution of the*

problem is bad, whatever may be the skill and ingenuity of your work as a specialist."

What I say of ordnance applies equally to torpedoes and the constructor's work.

The only reasonable and logical organization is one which is modeled upon the processes of nature ; in the study of living organizations, it is very quickly seen that while they are provided with acting members, they have above all a brain of which the function of command and impulse is so essential that without it equilibrium could not possibly exist and for an harmonious adjustment of forces there would be substituted an impotent anarchy.

The classic experiment in physiology is well known, of the pigeon from which the cerebral hemispheres have been removed ; the animal eats, drinks, walks, flies, performs separately each of its separate functions, by reflex action ; there is no doubt that this is not death, but it is very far from life in the whole sense of the word.

It is from the absence of this directing and impelling organ that the navy really suffers, and has suffered for too long a time, and it is because every study of strategy and tactics ought to constantly have *war* in mind, that the need of a general staff must be here urged.

It is well from time to time to examine our consciences, and in looking back over the last thirty years, we can say with all sincerity it is our very own fault that the French navy has been given a " patchwork " fleet ; it is also and always our fault that we have so many ships without military value, without counting all our other mistakes.

The eminent engineers who have charge of the construction of our ships, and whose scientific knowledge fully equals that of their foreign colleagues, would have given us, I am sure, magnificent implements of war, if we had put our problems before them otherwise than in indefinite terms, most frequently contradictory, and in words whose vagueness often concealed lack of sense.

It is full time to break with this school of irresponsibility, and if I have called attention, once more, to the object of a higher teaching of war in the navy, it is to justify the introduction into every program of strategy and tactics the study of weapons.

That this primary rôle of directing should be vested in our corps is natural, it is the consequence of our profession, which is

WAR ON THE SEA.

war; moreover it requires but little reflection to see that while we may very well conceive of a navy without engineers, constructors, mechanics or paymasters, we cannot imagine one without line officers.

Let us then henceforth resolutely assume all the responsibility; the lesson will bear fruit. If we begin hesitatingly, at least we will safeguard the principle, and we shall be able to blame none but ourselves for the result. Younger and abler men will follow in our path, who will have all the authority necessary, aided by the beneficent effect of the doctrines and the tradition drawn from these patient studies of war.

And there are still other thoughts which have led me to chose the form under which I present my book, so necessary has it seemed to me to show the close connection between the constitution of a projected fleet and the initial military conception.

The study of weapons, of the gun, the torpedo, the ram, etc., not going at all into details of their manufacture or mechanism, is a necessary part of the art of war. It is important to ascertain what conditions these weapons must satisfy with a view to their use in fighting; the improvements which we *greatly wish* them to have and the circumstances which favor their use. And it is apparent that any study of this kind would be purely speculative if it did not take account of what other nations are doing and particularly of what sort of hostile ships these weapons are to be used against.

These same weapons are carried by the fighting ship, a mobile gun platform, the determination of whose characteristics is one of the most important problems that exists; there are none which, in France, have had such fantastic and various solutions. Its powerful interest, as well as the anxious wish to find the unity which best suits the needs of French naval policy justify the laborious attention which should be given to it.

When we endeavor to solve the particular, much disputed, question of armor, of the protection of the vital parts of the ship and the most reasonable distribution of the weight allotted to that protection, what we must definitely ask military ideas and exigencies to fix for us, and they alone can do so, is the right balance between the conflicting elements of the complex design of the fighting ship. And the same is true as regards speed and other qualities.

However perfect we may suppose a fighting unit, it has no

raison d'être, nor even any practical value, unless other similar units exist; hence proceeds the idea of naval forces. A nation's fleets are the realization of its naval policy; and at once there again appears the close bond between the execution of a naval program and the foreign policy of a country.

At every step in the logical developments of strategy we meet new affirmations of the necessity of definite problems, connected together naturally and in sequence, in a perfect harmony of conceptions and thoughts. The political problem, having received a precise and clear solution on the part of the governmental authorities, allows strategy, represented by the General Staff, in its turn to clearly define, without any obscurity of principle, the military problem, with all its data. The constructor can then go on, without groping in the dark, and furnish, without appeal, a practical solution, in the responsibility for which each competent authority will have his definite share. Any other method, and to this day the one I point out has been systematically disregarded in France, can only lead to anarchy and to strategic and tactical disorder.

There is scarcely need to say that I shall have to formulate my own hypotheses, since I am not in any way in possession of the government's thoughts. But that matters little, since the essential is to study a method, and this study involves the examination of concrete cases.

How many squadrons ought France to possess, and what should be their composition? Such are questions which, to be answered otherwise than at haphazard, must be rigorously submitted to the control of military aims. They enter of their very essence into the subject under consideration.

The squadrons once constituted, it is necessary to put them in motion with a view to a naval action, to determine in consequence the conditions of their navigation, and to ascertain if its safety, or the dispositions to be taken in view of the battle which is our final aim, lead to adding to the fleet ships other than fighting ships properly so-called. The very interesting problems of scouting and search must naturally be faced, with care to accept only such facts as have been verified by experience.

Thus far we have disregarded all but purely technical considerations. We have given as it were a unique solution of an abstract problem; but things are very far from happening so in real life, and any naval strategy and tactics would be vain and illusory

WAR ON THE SEA.

which assumed that there are no restrictions upon professional ideas. Financial necessities fix impassable bounds to the total expenditure for naval forces, and those who have the important duty of preparing for war cannot ignore them.

I have only too often heard fine programs set forth, which had the sole fault of depending upon some magic purse, inexhaustible and bottomless, in which the minister of marine must find limitless resources. Strategy would be an easy game were this not absurd and impossible.

Actually, military resources are limited *in every country in the world*, and the limits are particularly narrow in France, where the expense of a powerful army must be met as well as that of a strong navy.

We have no right whatever then to ignore these special difficulties in our study of war.

And the expenses involved in constituting fleets do not stop with the construction of the fighting ships which form them. Stores of all sorts are necessary to allow the fleets to navigate; still more needed to replenish them, when they return to their home ports, after an operation of war, and to make them ready to set forth again. Arsenals provided with all the latest patterns of material, repair shops, dry docks, etc., must be organized in advance so that at their departure the said squadrons may be perfectly prepared, or, to use a vulgar but expressive term, in form, and that, on their return from cruising or from battle, they may be put in good condition as quickly as possible.

The question of supplies for the fleet and of arsenals is thus closely connected with strategy, and it will easily be made apparent what an immense capital, in stores of every kind, ought to be accumulated in time of peace by every maritime nation which does not wish to itself experience such grievous awakenings as those which the improvidence of the Spanish and Russian governments prepared for their unhappy countries in the course of the two recent wars.

However ample the expenditures for this purpose, they are truly economical when compared with the great and unproductive expense which an unfortunate war forces upon a conquered nation. And this is not all! Under penalty of accumulating for an adversary's use all these spoils of war, it is absolutely necessary to

shelter and defend them. The study of coast defence derives thence, and forms one of the most important branches of strategy.

To strategy equally belongs the right to fix the conditions which should govern the defence of the coast, the number of points to be defended, the means to employ, etc.

Always in the same spirit, and never losing sight of our guiding light, there is occasion to define the elements of naval defence, in combination with that of the coast, with a view to the necessary unity of action. Torpedo-boats, their especial utilization, their future rôle, the *raison d'être* of their employment, furnish ample matter for interesting developments which greatly justify the important place given to these little boats in the scheme of defence.

Submarines, and submarine navigation in general, are a not less important subject.

I shall tell no secrets in saying that during the last sixteen years the French navy has been presented with too many submarines of different designs, veritable laboratory instruments, incapable of any useful war service at sea ; it has been too often forgotten that the naval engineer's art, even in its greatest perfection, is not sufficient of itself, and that to give life to his work he needs to be inspired by the military idea.

And it is because of this fundamental error that our flotilla of submarines, outside of certain types of which we possess too few, is quite unsuited to our military needs, and that, if we continue in the same path, we shall risk losing our lead of rival navies.

Having come to the end of the driest, if not the least interesting part of our long exposé, we have to take up that which treats of the practical use of military studies and organization, certainly the part most open to prejudice, because we now draw near to our goal.

Advancing step by step, we have organized naval forces, and have provided for their upkeep and defence : the country possesses powerful means of action for any naval enterprise ; how shall they be used ?

It will at once be apparent, even to those of least competence in naval affairs, that the method of using this power will be quite different with different adversaries, depending upon their military resources and their remoteness from the original scene of war.

There is but a step from this conception to that of different eventualities, of variable combinations, in a word of war plans, or,

to use a happy phrase of Von der Goltz, *plans of operations*, worked out beforehand with a view to each particular case. Understand me well; it is not purposed to elaborate in the silence of the study plans based upon fixed and unvarying conjectures, in the chimerical hope that things will happen exactly so. I strive to accomplish something of real and lasting value, and am well aware that in war, as in a duel, attacks and replies are closely dependent upon each other. Consequently, in the field of war, even at the instant of effective movements, all previsions may be upset by some unexpected threat of the enemy. But, strategically speaking, it is indispensable to foresee in advance the principal lines of action, and, in consequence, to elaborate *plans*.

The German General Staff's opinion on this point is very clearly expressed in its work on the war of 1870:

"It is scarcely possible in the whole course of a campaign to repair errors made at its beginning, when the armies are being concentrated."

We shall see, in our study of the Russo-Japanese war, a striking confirmation of these words, Russia having really carried throughout the whole campaign the crushing burden of strategical errors made at its beginning.

Common sense alone should tell us that in all cases the method of prevision is infinitely superior to that of trusting to chance. With all due respect to the memory of a former French Minister of Marine, it makes one shiver to think that at an anxious time in our recent history, at a moment of such political tension as might at any instant plunge us into war with England, this Minister found no better instructions to give to the commander-in-chief of our principal naval force than these vague words, *"Take your whole squadron and cruise off Algiers."* We may esteem ourselves fortunate that war was spared to us, for we should certainly have been beaten.

Once more let me say that it is not any individual that I incriminate, and no word of blame will be found in my speech or writings for those who without doubt knew not that they were wrong. But I do protest most forcibly against such methods, and I shall struggle against the school of heedlessness and opportunism with an energy which arises from my profound belief that war is not a subject for improvisation. Should I have only succeeded at the end of this work in making all share in this belief, I shall feel

repaid for my efforts by the perception that I have contributed something new and useful to the work of my predecessors.

Even a summary draft of plans of operations is not only instructive, but indispensable, whenever strategy and tactics are discussed. And quite naturally, the application of these projects to special cases, to assumed adversaries, is indicated as the next step in logical sequence.

Such a study is particularly interesting because it permits us to pass in review the resources of every kind which a country has at its disposal, or which it ought to command—the facilities which its shores offer as a basis for its operations.

Thus, if considering our own case, the part which our naval forces might be called upon to play in a war with England, with Germany, or with other lesser powers, may be surveyed. The proper disposition of materials and men with a view to the prompt mobilization of the fleets, their concentration and distribution, and finally the proper objectives of the war, form so many subjects for discussion and for lessons of the highest interest.

Such a study is only possible, let us not forget, with concrete examples.

Once again I borrow from Von der Goltz, these profound and true words: "*Whoever writes on strategy and tactics ought not in his theories to neglect the point of view of his own people; he should give us a national strategy, a national tactics. Only thus will he render real service to his country.*"

In these thoughts I have found a new justification for the method which by intuition I had adopted for the development of ideas.

The plan of operations ought to foresee, besides the movements and concentrations of naval forces in the vicinity of arsenals, those which take place afar off. New needs arise; bases of operation, points of support, depots from which stores may be replenished, are necessary to these fleets.

Principal bases, secondary bases, so many means of action without which modern fleets cannot do, and the proper appreciation of which demands above all a far sighted policy, then stable military institutions ruled by a spirit tenacious and foreseeing. What patient labor, continuous and persevering effort, this part of the preparation for war exacts, under penalty of suffering the bitter and cruel trials of Spain and Russia, may already be imagined.

WAR ON THE SEA.

All the preparations for war are made with a single end in view, *battle*, and all the elements necessary for its fruitful discussion are in our possession at this point in our study.

Here we enter more particularly into the realm of tactics. Assuming the opposing fleets in contact, that is to say where, having knowledge of each other's positions, they are manœuvring with a view to a meeting, the first thing in order is to inquire what means are employed to move them.

The evolutions or formations, all combined movements in close order on the field of action, the signals used to order those movements, in a word the whole aggregate of diverse precepts so improperly grouped under the false title tactics—which should not at all be confounded with the art of engaging or sustaining battle—these multitudinous subjects contain inexhaustible mines of useful knowledge.

I will even say that the interest which attaches to all phases of the fighting which is the true goal of war is so intense that it would be much more logical to attack the problem analytically instead of treating it by synthesis, as I have done. As a matter of fact, all conceptions of war, fully to meet its real conditions, must rest upon the deductions drawn from the study of battles and take account of their least incidents. But such a method falls within the province of the General Staff, since, to be fruitful, it needs special knowledge not yet possessed by a great number of the officers for whom this book is intended.

After the battle waged to assure the conquest of what we shall see later on in detail to be the final and highest objective of every naval war, namely, command of the sea, operations of a special kind may take place. I refer to what are generally called combined operations, such as occur in the case of the invasion of a hostile country, and in which the navy's rôle is to convoy the transports, to assist in the disembarkation of the army and to protect its lines of communication.

There necessarily exist, then, certain conditions which make possible this sort of operations, and certain measures which it is wise to take in order to insure their success.

Have I thus completed the exposition of the program of a complete study of naval strategy and tactics? No, there remains one last subject, and not the least important; for if I have thus far spoken exclusively of the material forces with which preparations

WAR ON THE SEA.

for war must reckon, there is still a word to be said of moral forces, at least as essential as the others; history shows the influence upon the fortune of war of the professional instruction of crews and of officers, of their power of endurance and of their faith in a successful issue.

"*An important condition,*" says Von der Goltz again, "*is that the morale of the army be good*" and also: "*It is essential that the Commander-in-Chief, as well as the troops, shall have the firm will to conquer.*"

After Tsushima, we may well consider these words prophetic.

Doubtless some will think that I have dwelt too long on the program. I do not think it time wasted, if I have succeeded in opening to view the *philosophy* of a complete study of naval strategy and tactics, and finally and above all because we now know exactly what we seek and whither we go.

A good program is the skeleton upon which the substance of a book must be moulded into shape, and the labor of erecting it first of all is a useful one. In glancing hastily over this vast and complicated program I cannot help thinking of the imperishable rules of the wonderful *Discourse on Method*, of which a better application than to the work of preparation for war could not be found: "(1) Never to accept anything as true which we do not clearly perceive to be so; to carefully avoid precipitation and prejudgment, and to include in our judgments nothing more than that which presents itself so clearly and distinctly to our minds that we have no reason to doubt it; (2) to divide the difficult questions which we have to decide into as many parts as may be possible, and as may be required in order to better solve them; (3) to arrange our thoughts in order, beginning with the simplest objects and those easiest to understand, rising little by little, as by degrees, to the understanding of the most complicated, and even assuming that there is order among those which do not at all naturally flow one from the other; (4) finally to everywhere make enumerations so full and reviews so complete that we may be assured that we have left nothing out of consideration."

As I began by saying, the present work is devoted solely to that part of this *vast study* which concerns the exposé of principles.

CHAPTER I.

THE MILITARY ART OF ALEXANDER, OF HANNIBAL, OF CÆSAR, OF FREDERICK THE GREAT AND OF NAPOLEON; THE NAVAL STRATEGY OF NAPOLEON.

In taking up the historical study of the great wars of the past, I think it useful to insist upon the important point that my aim is not to teach this history; others more competent than I have done that. I shall suppose it to be wholly known, and shall devote myself solely to pointing out the useful lessons which can be drawn from it from the point of view of the military art.

As soon as this study is undertaken with this objective, it is impossible not to be struck by the fact that at every epoch, whatever the surroundings and the instruments, the same faults have brought on the same disasters, as also identical precautions have always insured success. It is on this account above all that the study of history is fruitful; it is so much so, as I hope to demonstrate, that it does not seem possible that any military organization should fail to take account of it. Rightly has it been said, *History repeats itself*.

If I begin by examining the campaigns of great warriors, it is because, despite the differences, more apparent than real, between armies and fleets, there is truly but one strategy and its principles are of general application. It is in tactics particularly that the differences are emphasized, since by its very nature tactics is influenced by weapons and their multiple variations.

Two very different methods may be pursued in the application of history to research for the principles of war; either some war may be taken as a type and analyzed in all its details to extract from its successes and its failures a lesson of general application, or, on the contrary, a large number of examples, taken in all ages, may be examined more superficially and having regard only to the general plan.

I have deliberately chosen the second of these methods because of its undoubted superiority from the teacher's point of view. If the first is really more satisfying to a specially cultured mind—and

WAR ON THE SEA.

I cannot too strongly advise officers to practice it perseveringly—the second is better adapted to teach basic principles from the fact that it furnishes proof of their universality.

ALEXANDER.

The primordial interest of historical documents in the study of war is amply proved by the absorbing interest which they have had for the great soldiers of all ages.

We read in the Life of Alexander by Quintus Curtius: "*He invariably carried with him the works of Homer; according to his own words, they were his stores for the campaign; they were the school to which he went for lessons in warfare, and he was often heard to envy the good fortune of Achilles, who had such a herald of his glory.*" What were the special characteristics of the genius of this great warrior? All historians agree upon this point; he was gifted above all with extraordinary activity and rare determination. "*He himself recognized that he owed success to his activity. When he was asked by what means he had been enabled to conquer Greece he replied—By losing no time.*"

To this same activity Alexander, *who feared nothing so much as delays*, Quintus Curtius says, owed his unbroken series of victories, won with a handful of men over innumerable hosts of barbarians, and that marvelous conquest of Persia.

We shall find this essential quality of a leader in all the great men who have made their names famous on battle fields; Napoleon, Suffren, and particularly Nelson. It is inseparable from victory.

But whatever may be the value of this moral factor, in studying Alexander's campaigns we shall seek something else; we must find in his conduct the military principle which guided him.

We shall find it in its entirety in an incident of the battle of Arbella. At the height of this hot action, Parmenion sends to warn the king that the Persian general, Magius, is attacking the baggage trains, and he asks orders to go to their protection. Alexander replies: "*If we carry off the victory, we shall recover what belongs to us and moreover become masters of all the enemy's possessions. Let him take care then not to separate the least part of his forces from the field of battle, but rather, in a spirit worthy of my father Philip and myself, let him fight valiantly and despise the loss of a little baggage.*"

Thus, for the Macedonian king, the principal objective, to which all others ought to be subordinated, was the defeat of the hostile army, in one word, battle. He calculated that the surest way to attain *the ends of the war* is to destroy the main forces of the adversary.

And he carried this conception of war to its extreme logical conclusion when, after a victory won, he pursued the enemy with indefatigable activity to complete his overthrow. After the victory of Issus, he chased Darius and his scattered forces with savage energy, without giving them truce or respite, and only stopped when his own troops were worn out. He rightly estimated that in war there ought not to be any half victories and that it can only cease with the complete crushing of the enemy.

These statements appear like arrant commonplaces, they are so agreeable to common sense, and yet, as we shall see later, our country has suffered its most grievous defeats through having too often forgotten them.

Alexander had, moreover, a profound belief in the superiority of the attack over the defence. In an address to his soldiers before the expedition against the Persians, he expresses himself as follows: "*Promptitude has a thousand advantages which pass over to our enemy if we waste time in sluggishness. The first impression is a great point in affairs of this kind, and that is always in favor of the one who attacks The strongest, in the common view, is he who makes war, not he who awaits it.*"

In these words lies the germ of a doctrine attaching special value to the *offensive*, which, after twenty-two centuries, has in nowise become obsolete. Besides the sure moral effect which places the one attacked in a state of undoubted inferiority, the ignorance in which the latter necessarily is as to the progress of the aggressor constitutes a new cause of disadvantage.

Nor was Alexander the only one convinced of the high military value of the offensive. The Persian general Memnon, deeming that *it is a truth which no one doubts that it is better to wage war in a foreign country than in one's own*, had proposed to invade Macedonia. The plan was rejected, with what result one knows.

Among the qualities from which Alexander drew great advantage, his perfect understanding of the weak points of the enemy must be cited. If he dared to launch himself with a small army against the innumerable troops of the Persians, if he never re-

coiled from enterprises as bold as the passages of the Granicus, of the defiles of Cilicia and of the Tigris, always in the presence of an enemy much stronger than himself, it is because he understood the latter's customs, his indecision and his inactivity, all factors of which the greatest account should be taken. And this is the more important to us because we shall see later on other great warriors, Nelson for example, plunge into enterprises so audacious as to be almost blameworthy, if the certainty that the adversary would not know how to oppose himself to them had not made them legitimate.

The fine discipline which he instilled into his phalanxes permitted him, moreover, to balance their numerical inferiority by the exceptional quality of his troops. "*The men, attentive to the least sign from their leader, have learned to follow their flags and to preserve their formation. Whatever is ordered, all execute: to face the enemy, to outflank him, to attack one wing or the other, to change the order of battle, are manœuvres as familiar to the soldiers as to the captains.* He also counted upon the worth of his soldiers, accustomed to victory, whom courage and experience in arms made invincible."

In these citations are condensed, in reality, several main factors of the important formula of preparation for war.

Trained armies, accustomed to all drills, broken to the ways of their chief, in which the men touch elbows, are half the victory, but such results cannot be attained for the first time on the battlefield; preliminary training is necessary, the patient labor of a time of peace.

Finally these same citations contain valuable indications of the fighting tactics of Alexander the Great: *to attack one wing or the other, to outflank the enemy*; would one not suppose in hearing these words, that they referred to the operations of poignant reality of which but yesterday Manchuria was the bloody theater?

To manœuver his troops so as to be stronger at *one point* of the field of battle than those who opposed him *at that point*, such is the great principle of war which the King of Macedonia constantly applied and to which he owed his persistent triumphs. It is by this same tactics, although with different means, that in the course of history the great generals and also great admirals will carry off with a high hand their victories, despite being in most cases the inferior in point of numbers.

WAR ON THE SEA.

HANNIBAL.

The study of the Punic Wars, a century later, will furnish us with an ample harvest of interesting documents, especially from the naval point of view. Mahan, in his remarkable work, the *Influence of Sea Power upon History*, has already made it quite clear that Hannibal's final defeat in his titanic war against Rome was solely due to the fact that he was not master of the sea. But the American historian, in my opinion, has treated only one side of the question, and it does not seem superfluous to reconsider it.

As a matter of fact, Hannibal's part, which was during the second Punic War, was only one phase of a deadly strife, which began before him and lasted till after his time, for the conquest of trade supremacy. For it was truly trade rivalry which brought face to face the great commercial city of Carthage and her rival in the path of expansion, ambitious and insatiable Rome, in a field too narrow to satisfy both at once.

Do we not find in Suetonius this thought: *No commerce will be possible between Italy and Africa until Carthage has been destroyed.*

In recalling this memory of far off times, we cannot help connecting it with the doings which at this moment are being disclosed to us and which, from identical economic causes, are arming for approaching strife two great European powers. Is it not true once more that history repeats itself?

In a memoir rewarded by the Académie des Inscriptions et Belles-lettres in 1784, and having for subject: *The Influence of Naval Strength upon the Power of the Greeks and Romans*, the author says:

"But for fear of Carthage, the Romans would perhaps never have had a navy. The colony of a race of seamen, the Carthaginians were scarcely established before they became traders. Commerce gave them birth, commerce supported them and facilitated their growth, commerce alone gave them strength and riches It was against them that Rome undertook her first naval ventures. After having subdued the Tuscans, the Latins, the Samnites and all the neighboring peoples, she sought further conquests, and Sicily became the object of her desires. Fortune served her useful ambition; I say useful, for without it not only would the Romans never have raised themselves to a height of greatness which astonishes posterity, but the products of their

country would not have sufficed for the rapidly increasing number of its inhabitants.

"Among all the scenes of battle which history displays with so much prodigality, there is none more interesting than that of the Punic Wars; at least there is none which has had more influence upon the happiness of the world. There may be seen two powerful nations, whose successes have increased their desires, attempting to make everything yield to their conquering arms. Conquerors and conquered, by turn, these worthy rivals fight for, seize, and take back again the empire of the seas; and this astonishing spectacle becomes still more so when, as leaders in it, are seen the greatest generals that ancient times have known. Nature might be said to have been under the orders of fortune and to have been eager to serve ambition.

"The Romans had the better luck. A Carthaginian galley, cast by a storm upon the shores of Italy, furnished them with a model, and within two months they had one hundred and twenty ships, sailors and rowers.

"Victory suddenly crowns their zealous industry. Scarcely launched upon the sea, they make its masters tremble. Mylæ, Ecnomos, the whole of Sicily, are witnesses of their success, and Africa will soon have new rulers."

This quotation will not appear too long to those who consider it well and think of the same causes which, to-day or to-morrow, will bring to blows, in a struggle of life and death, England and Germany, just as they armed, one against the other, more than two centuries ago, England and Holland.

The Punic Wars, then, were born of a reciprocal feeling that Rome and Carthage could not live side by side and that one of them must disappear.

They had Sicily for their first field of operations, and its conquest for their first objective. But Rome was not slow to perceive that she would never be able to take the island from her rival so long as the powerful Carthaginian fleet could, with impunity, traverse the seas, supplying her forces with stores or bringing re-enforcements.

There was only one logical and reasonable solution; since the Punic navy constituted the principal force of the enemy, it was that which must be destroyed. The Roman Senate understood this, and as they had no fleet, caused one to be built, thus showing

WAR ON THE SEA.

remarkable intuition in matters of war. We shall see later that, owing to their not having the same good sense in analogous circumstances, the government of the unhappy Russian people drew upon their country the most lamentable disasters.

Happily not so much time was required three centuries before the beginning of our era as would be now to build a navy; at the end of a few months it was fully equipped and ready.

Then began an eager pursuit of the Punic naval forces, ending in their defeat at Ecnomus, and in the Romans' securing for a time the command of the sea. I say for a time, because this command of the sea was a veritable barometer of victory during the first Punic War. In Sicily, as in Sardinia and Corsica, the many battles fought by the armies of the two rival cities were never decisive. No sooner would Rome, having won an advantage, seek rest in fancied security, or allow her fleet to fall into danger, than Carthage would again seize command of the sea and throw new forces into the islands, and vice versa.

The famous Hamilcar, holding thus in check all the legions sent to Sicily to rout him, the Roman Senate once more perceived that the only possible way to conquer him was by cutting him off from his base of operations, Carthage, by regaining command of the sea.

The time was propitious, for, as the historian Polybius says, "*The Carthaginians, convinced that the Romans would never think of building up again their navy, in their contemptuous feeling of security, had greatly neglected their own.*"

The reconstructed Roman fleet soon afterwards met the Carthaginian fleet at Aegates and destroyed it; Hamilcar, cut off from Carthage and starving in Sicily, had to surrender, and his vanquished country to agree to peace with humiliating terms.

These facts, far removed from our times as they are, clearly foreshadow the importance which naval supremacy will assume in later times, and for that reason we could not pass them by unnoticed.

Rome has now to reckon with a redoubtable adversary, Hannibal, one of the greatest captains of all time, of whom Thiers could say, "*Napoleon, a greater soldier than Cæsar, first by being more of a specialist in the profession of war and then by his boldness, depth of insight and inexhaustible fertility in combinations, has had in these respects but one equal, or, if one may dare to say it, superior, Hannibal.*"

But the culpable carelessness of Carthage, which allowed the Punic naval power to be endangered, while that of Rome continued to increase, deprived her general of a primary element of strength in the ardent and merciless struggle which now began for the conquest of leadership in the Mediterranean.

Like the great warrior that he was, Hannibal understood that it is necessary to strike at the very heart of a strong nation in order to overthrow it; to conquer the Roman Empire, war must be carried to the doors of Rome herself. *But Rome was mistress of the sea*, and undisputed mistress, since, after the battle of Aegates, only a memory remained of the powerful Punic navy.

The way by land alone was left for Hannibal to take, and this led him through Spain and Gaul, across the Alps into Italy. Followed that great drama, so well known, which after so many centuries still evokes our admiration, for nothing greater from the military point of view has ever been done. His idea in adopting this strategic plan was to keep in constant touch with his base of operations, Carthage, by land communications wholly, except at the narrow strait of the Pillars of Hercules, into which he did not think the Roman fleets would dare to venture. But this was an idle dream. After his memorable passage of the Alps, his invasion of Italy was an uninterrupted succession of triumphs and loosed against the power of Rome the most terrible storm which ever menaced that republic. The great victories of Trebbia, Trasimenus and Cannæ were its three bursts of thunder, which, however, by their very violence, caused an abatement of the storm. Such successes were not purchased without losses felt by the victor; his effective forces, already weakened by the difficult passage of the Alps, diminished at each battle, and to maintain his strength reinforcements from home were necessary.

These could come to him by two routes only; the most direct, by sea, was almost continuously closed to him, the various attempts at revictualing by fleet and convoy during this war having, with very few exceptions, failed, owing to the superior Roman fleet barring the way: by the second, the land way, the communication was slow and difficult, and its only serious trial failed, just at the point of success, with the defeat of Hasdrubal in Cisalpine Gaul. Supposing the junction of the two brothers to have taken place, Hannibal would have doubtless been able to prolong his resistance, but the final result would have been the same.

Energy uses itself up when it is not replenished: but Rome at the critical time found a man who, taking inspiration from the principles of war of Hannibal himself, went on to apply them with means of action which his rival did not possess. Scipio Africanus first drove the Carthaginians from Spain, and thus with the same blow cut the bond, so attenuated, so fragile, so long, and consequently so precarious, which connected the invading army with its base; then, assembling an expeditionary force in Sicily, he threw it into Africa and thus threatening the heart of Carthage consummated at Zama the defeat of Hannibal, whom his country in desperation had recalled, and the complete overthrow of the Punic power.

Thus it was of no use to a great nation to have in its service one of the greatest geniuses of the human race, so great that by a veritable military paradox he succeeded for fourteen years in maintaining himself on Roman territory and, although weakened and almost stripped of everything, in terrorizing Rome. That nation had not given him the means of conserving the fruits of his victories by assuring a permanent connection with the source of his life, his mother country. She could not but be vanquished. Her rival had but one good general, who copied the military processes of the great leader; but he always had assured communications and the certainty of being kept reinforced. He finally won the victory, and we shall see later on that all similar historical situations have the same denouements. What would not Hannibal have accomplished with the same facilities? Rome would have been conquered and the destinies of the world changed.

The retrospects of the Punic Wars furnish us with other not less valuable lessons: the Roman fleets did not at once attain to the high degree of efficiency which gave them the final victory over those of Carthage. They began with painful experiences and severe trials; their crews were not inured to the hardships of sea life, and repeatedly numerous ships were totally lost on the coast of Sicily as a result of the inexperience of the Roman sailors. So true it is that in no age of the world can a navy be improvised, that being always the work of time.

Among the characteristics of the genius of Hannibal, his perfect understanding of the human heart served him well in all his warlike undertakings. A profound politician, he knew how to use to his own advantage the hatred of the peoples subject to Rome,

as well as to acquire over his own troops a prestige and an ascendancy which inflamed them with zeal.

CÆSAR.

Cæsar himself also showed unwearying activity in war, as well as many other of the qualities of his illustrious predecessors. We read in his *Commentaries*: That he surprised the Helvetii, "*astounded at his sudden approach and to learn that he had crossed the Saone in a single day, which they had scarcely done in ten.*"

To prevent the Suevi from getting possession of Besançon, he hastened there by forced marches day and night and seized it himself. We also find in him that peculiar aptitude of the warrior to seize every occasion to profit by the weaknesses of an adversary. After his first skirmish with Ariovistus, "*Cæsar, having asked the prisoners why the king did not accept battle, learned that according to the customs of the Germani the matrons had to decide, by spells and omens, whether or not it was propitious to engage in battle: but they had declared that the Germani could not win if they fought before the new moon.*" Without loss of time, on the following day he attacked, despite the disproportion of forces, and victory rewarded his boldness.

In our own time there always exist causes of demoralization which, though quite other than those of ancient times, are not less real, as the war in the East proves: they will have a considerable influence in the final fate of future wars, for the strength of an armed nation is made not only of its own force but of the weakness of the one which is opposed to it.

It is in the course of the same action that the fighting tactics commonly used by Cæsar are revealed to us: "*having observed that the enemy's left was his weak side, he himself attacked with his right wing.*"

On the other hand, he knew too well the importance of a careful preparation of the soldiers to have sacrificed this indispensable gage of victory: the proof of this is found in the *Commentaries*, apropos of a battle with the Nervii. "*In this difficult position there were two resources: the first was the experience and skill of the soldier who, instructed by previous engagements, knew as well what to do himself as if orders were given to him, . . .*"

WAR ON THE SEA.

Each lieutenant, without asking for orders from the general, himself took the best practicable dispositions."

And this calls attention to the very great value of an armed force which has undergone long and patient training, and in which each important unit thoroughly understands the ideas of the chief. We shall meet with this invaluable element in many circumstances of war, but always on the successful side.

One episode in the course of this memorable Gallic War is of quite special interest to us: I refer to the campaign against the Venetii. These latter had a numerous fleet of strong vessels with lofty bows and equipped with very substantial sails made from skins, built to withstand the stormy weather of the inhospitable coasts of Britain. The Romans had only galleys too slightly built for the heavy seas of that vicinity. And yet Cæsar, with his clear understanding of the principles of war, did not hesitate to attack the fleet of the Venetii, because he well knew that this fleet constituted *the main force* of the enemy and that by destroying it he would take the surest means to bring the war to an end.

As a matter of fact, the towns of the Venetii were built at the ends of promontories, and, surrounded by the sea at high tide or by wide marshes at low tide, were quite inaccessible. Only by the long and laborious construction of works such as dykes could they be approached, and their inhabitants only abandoned them one by one, escaping in their vessels, and thus prolonging their resistance.

If I seem to linger unduly over deeds of twenty centuries ago, it is because similar ones occur in every military enterprise, although the ending is not always quite the same. But, let me hasten to add, that, as we shall see, victorious generals always do as Cæsar did.

The aim of every war is to bring one's adversary to his knees completely and as quickly as possible: there is no more certain way of reaching this end than by destroying his principal forces.

Taking advantage of the favorable circumstance of calm weather, which deprived the Venetii's fleet of its natural superiority, Cæsar completely defeated it, and that people soon made its submission.

One of the translators of Cæsar's *Commentaries* has well defined his many and remarkable qualities: "*He had moreover all the qualities which go to make a good general: prudence, coolness, activity, boldness, a mind fertile in resources, a sure and clear*

sight which covered the general features of the vastest project and comprehended all its details, a wise restlessness which made him feel THAT HE HAD DONE NOTHING SO LONG AS THERE REMAINED ANYTHING TO DO, a courage to surmount all obstacles, great understanding of men, the art of making himself loved and respected by his soldiers."

I have made this quotation because it includes not only the definition of the great military chief, but also and primarily the formula of the art of war in its broadest sense and for all times. I have purposely underlined one phrase which contains the secret of many historical triumphs; to speak only of Suffren and Nelson, they also never thought their task finished so long as the end which they had fixed for themselves was not attained.

It is opportune to here recall a word of Napoleon's of striking truth: "*No great continuous actions,*" said he, "*are the results of chance and fortune. Rarely are great men seen to fail in their enterprises Look at Alexander, Cæsar, Hannibal they always succeeded. Is it because they were lucky that they thus became great men? No, but because, being great men, they knew how to master fortune. When we study the causes of their success, we are astonished to find that they did everything to obtain it.*"

The transition from these ancient wars to those of times nearer our own may, without disadvantage, be very brief. Lieut.-Colonel Hennebert has covered the ground very well when, speaking of Hamilcar, father of Hannibal, he expressed himself as follows: "*The great Carthaginian understood all the importance of marches, and it may be said that he invented them. Till then only wars of siege and place had been waged, and the singularly timid movements of armies consisted only in queer rotations about one or several places taken as pivots. The shrewd Barca resolutely broke with these slow and monotonous methods. His son Hannibal, who twenty years later surprised the Romans by so many unexpected and rapid movements, was to carry on this revolution in the military art, which Julius Cæsar will bring to its climax. These three great men once vanished from the scene, an insurmountable routine will again bring into favor the old methods, which will remain solely in use in Europe until the time of Gustavus Adolphus: then only will Hamilcar and his son Hannibal be remembered, and modern peoples will see the phases of a new*

WAR ON THE SEA.

revolution develop. At the time of this renaissance, Turenne, Condé and Vauban will lay down principles, of which the great Frederick will make the most successful application, and from which the Emperor Napoleon will gloriously deduce all the consequences."

Let us note in passing, in the preceding lines, the precise idea of the strategic importance of speed.

FREDERICK THE GREAT.

The great Frederick's campaigns are an interesting study, at least in their broad outlines: the first of his reign are characterized by a constant regard for the offensive, so far at least as it was permitted by the ideas of that time and by the difficulty of revictualing armies due to the system of storehouses.

To make this offensive action possible, seasoned troops were needed, practised in marching and manœuvring, under rigid discipline, all matters to which the Prussian king attached great importance and which he endeavored by every possible means to obtain.

He prepared, in this manner, the manœuvring armies which were necessary for the application, on the field of battle, of his favorite tactics of concentration against the weak point of the enemy's army, most frequently one of its flanks. The successful use of this plan required an oblique march, out of sight of the enemy, carrying the main body of his forces against one wing of the enemy, a delicate manœuver which only rapidity of execution and the endurance of soldiers inured to warlike exercises could make successful.

Frederick's tactics in reality amount to nothing more than this extremely simple plan of battle; to it he owed his wonderful successes in the first four campaigns of the Seven Years War, despite the notable inferiority in numbers of his armies relative to the allied forces. The frequency of his victories over more numerous enemies can only be explained by the excellence of a simple plan in which the idea of the superiority of forces concentrated at one point of the battle field is disclosed.

This simple tactics must not be confounded with the manœuvres and complicated exercises of the drill ground, which came so into fashion after the Seven Years War under the name *Prussian Exercises*, which the Prussian king never really used on the

WAR ON THE SEA.

battle field, and which served him rather as a "bluff" to frighten Europe and so avoid new wars in which he feared to compromise his successes.

Here a comparison is forced upon the seaman, who in every military idea naturally seeks to find an application to naval affairs. At sea, even more than on shore perhaps, the need of well drilled forces appears evident. It is on a liquid plain, with no inequalities of ground to conceal one's movements from the enemy, that a fleet must be manœuvred so as to bring its whole weight to bear upon a weak point. How could one hope to accomplish this without a long and methodical preliminary training in time of peace, accustoming the ships to navigate and to evolve in close order with the maximum precision and rapidity? The concerted manœuvres which alone can give to an armed force that unity which will enable its chief to obtain the greatest results from the war machine which it really is cannot be improvised on the field; they are the fruit of a long and patient preparation which cannot be too particular of details.

From this point of view, the evolutions and formations of squadrons, which some superficial minds rather hastily condemn as useless, have an indisputable value, even if we see in them nothing more than a system of naval gymnastics, giving to the personnel a flexibility and a cohesion in manœuvring together, from which a sure benefit will be derived on the naval battle field.

I seize this opportunity to condemn the strange opinion of those who refuse to see in the exercises, voyages or periodical manœuvres of squadrons anything but pretexts for throwing away money in smoke; profound ignorance of the requirements of war can alone explain this point of view.

The great Frederick's method must be regarded as a good one, but with the condition that *Prussian Exercises* be rigorously proscribed upon the sea still more than on shore; that is to say all too complicated movements or evolutions requiring excessive use of signals.

In this connection, we refuse to accept those more or less learned combinations which under the pompous title of tactics are really only applications of a purely speculative geometry. Actual war on the field of battle has no relation with the theoretical figures which a complacent imagination conceives on paper or executes when guns are silent.

WAR ON THE SEA.

NAPOLÉON.

Still more admirable in their simplicity were the methods of warfare of Napoleon, "the master of masters" as General Bonnal has called him.

The great Emperor's method he himself described when he summarized it in the phrase, "*To march ten hours a day, to fight and then to rest.*"

This brief formula really contains a whole system of strategy. In the first place it postulates the immutable principle of rapidity, accepted by all great leaders as an article of faith of the military gospel throughout all ages, and so well known as such that it is astonishing to see it again brought into discussion in our own times. In the second place, it sets forth with precision the idea that fighting is of primary importance and the principal objective.

Bonaparte made the first application of his fine conception of war in the immortal campaign of Italy. He knew marvelously well how to draw advantage from the customs of his epoch, according to which the armies opposed to him, greatly superior in numbers to his own, occupied very extended fronts, with a view to increase the development of their fire. These forces thus disposed, and necessarily manœuvred very little, offered numerous points of weakness against which the young general directed the whole effort of his troops animated with the tremendous activity which he knew how to inspire in them.

He also might have said, as Alexander the Great did, that *he won his battles by not losing time.*

Though his armies were almost always inferior in numbers to those of his adversaries, still he constantly beat them by securing a numerical superiority at one point at a given moment. No one better than he has known how to show the exact meaning of superiority of military force.

It is fair to note that his genius benefited greatly by the radical transformation which took place in the composition and spirit of the French armies from the end of the eighteenth century. The powerful inspiration of the Revolution had animated the hearts of the soldiers and implanted in their minds the profound sentiment of a struggle for the *fatherland*, an ideal thenceforth sacred. The *armed nation* was about to supersede, for the first time, professional armies, composed of mercenaries. This great moral force

WAR ON THE SEA.

was to be one of the most efficient instruments by which the genius of Bonaparte won victories.

Carnot had really already laid down the laws of the equilibrium of military forces and stated the principle of concentration against a weak point of the enemy so as to obtain superiority at that point. But the instrument for applying this fruitful principle was lacking, or, to speak more accurately, that instrument was not yet sharpened.

Another of the great elements of strength in Napoleon's military power was his constant and judicious economy in the use of forces. The word economy must not be here taken in the sense of parsimony, for, quite to the contrary, *he himself laid it down as an axiom "that the very last man ought to be expended, if needful, on the day of battle, because on the day after a complete success there are no more obstacles to surmount and public opinion by itself alone assures new victories to the conqueror."* Economizing here signifies holding in reserve ready to make the decisive effort at the selected time and place.

"Have no lines at all, but keep all your troops united and grouped together around Genoa, with your depots in Savona," he wrote to Masséna at the beginning of the campaign of 1800, and he added: *"Such are the true military principles; by acting thus you will beat fifty thousand men with thirty thousand and will cover yourself with an immortal glory."*

This campaign of 1800 offers a fine example of the primary importance of strategic combinations prior to any other operation of war. France was about to face two armies, operating upon two very different fields, the Rhine and Italy. Under penalty of scattered efforts resulting in sure inferiority everywhere, a choice had to be made between the two objectives according to their relative importance.

Napoleon, in his *Memoirs*, has himself explained the motives of choice and the reasons which led him to regard the German frontier as of predominating importance and that of Italy as secondary.

"If the army of the Republic had been beaten on the Rhine," said he, *"and had conquered in Italy, the Austrian army could have entered Alsace, Franche-Comté or Belgium, and have followed up its successes without the French army, victorious in Italy, being able to make any diversion capable of stopping it, since to establish itself in the valley of the Po would have necessi-*

WAR ON THE SEA.

tated the capture of Alexandria, Tortona and Mantua, which would have needed an entire season."

"If the French army on the principal frontier, the Rhine, was victorious, while that on the secondary frontier, that of Italy, was beaten, all that need be feared was the capture of Genoa, an entry into Provence or perhaps the siege of Toulon. But a detachment of the French army of Germany, descending from Switzerland into the valley of the Po, could stop short the enemy's victorious army in Italy and Provence."

I have cited this case because it shows better than any amount of reasoning how important it is in war to *prepare* operations; this task, as essential on the sea as on land, belongs to strategy. This example also indicates the necessity of making a rational choice from all the possible operations, and above all of not leaving the decision to chance; the part played by fortune in the events of war is too important already for us not to try to limit it as much as possible.

It is extremely fortunate that any dominant conception which is sought for in the military acts of Napoleon, can be learned at first hand, since he himself took care to make it known. For those of us especially who wish above all to discover the philosophy of the principles of war of all times, this method of letting the authors themselves tell what motives they obeyed, is much more fruitful than any other based upon a dry and often arbitrary description of battles.

"The force of an army," wrote he in his *Memoirs*, *"like momentum in mechanics is measured by the mass multiplied by the velocity."* How unmistakably suggestive it is to observe the unanimity of great warriors in taking speed to be one of the essential means of action. This fundamental idea ought to be pointed out on every occasion, for, despite the preponderant part which it has played in all the wars of the past, some still contest it in our time. As to the mass, that is to be taken in the sense of the superiority of effort at a given point, and to quite enter into Napoleon's idea, his decisive acts in war give us the right to affirm that he gave greater weight to velocity than to mass in the product in question. That is what enabled him to beat armies much greater in numbers than his own with troops endowed with extreme mobility.

In that inexhaustible mine of able thoughts, the *Memoirs* of Napoleon, we find this too: *"A great captain ought to say to*

WAR ON THE SEA.

himself, several times a day: If the enemy's army appeared in front, on my right or on my left, what should I do? If he finds himself embarrassed, he is badly stationed, he is not according to the rules, he ought to seek a remedy."

Thus has he laid down the principle of prevision in matters of war, and at the same time the condemnation of the formula, "The future will take care of itself," in accordance with which too often in our history affairs have been left to the guidance of chance. And, moreover, this plan has been too unsuccessful at all times not to be vehemently rejected to-day, not to cause us to combat with energy the opinion, too often countenanced, that, in the absence of incontestable doctrines in military, and especially naval, affairs, *leave everything to the inspiration of the moment* should be the only rule. Such reasoning conducts inevitably to defeat.

Yet an analogous principle is very familiar to those of us who are seamen. The officer is taught, as the very grammar of his profession, that his first thought on taking the watch at sea should be to review mentally the possible contingencies, the meeting with ships, the saving of a man overboard, etc., so as to have clearly in his mind what should be done in the existing state of weather and sea. This excellent professional habit, which leaves nothing to the uncertainty and hesitation of unpreparedness, appears so natural to us merely because our naval education has changed it from a conscious to a reflex action.

Therefore this same principle can have only fortunate results in that so much more important and vast sphere of war.

"Every war conducted according to the rules of the art is a systematic war, because every war ought to be conducted in conformity with the principles and rules of the art and to have an objective; it ought to be carried on with forces proportioned to the obstacles which are foreseen," said Napoleon; and again: *"Alexander, scarcely more than a boy, with a handful of men conquers a large part of the world, but was this a mere onslaught on his part, a sort of rush? No, all is profoundly calculated, boldly executed, wisely conducted."*

Cæsar conquered the Gauls and overthrew the laws of his native land; but were his great deeds of war the result of chance and mere luck?

Will it be believed that Hannibal owed his career and so many

great actions only to the caprices of hazard, to the favor of fortune?

"All these great captains of ancient times, and those who later on have worthily followed in their steps, only did great things by conforming to the rules and natural principles of the art; that is to say, by the correctness of their combinations and the logical relation of means to ends, of efforts to obstacles; they only succeeded by obeying correct principles, whatever may have been the audacity of their enterprises and the extent of their successes. They never failed to treat war as a true science. It is in virtue of this alone that they are great models, and it is only by imitating them that we can hope to rival them."

That success in war cannot be the result of chance stands out from these words with repeated and intentional emphasis, and establishes itself as their logical conclusion. A truth so fundamental, from the pen of such a man, ought already to have the force of a law; the most recent facts of military and naval history have just shown us what the cost is to nations which, ignoring it, have foreseen nothing and prepared nothing.

Clausewitz has defined Napoleon's method of war in these terms: *"To begin by striking hard, to take advantage of his successes to strike again, to always and unceasingly stake all he has on a single card till the bank breaks: such was Bonaparte's way and it is precisely to this correct conception of war that he owes his incredible triumphs."*

This judgment of a military writer of distinction shows how great a place fighting had in Napoleon's military designs; he surely assigned to it the principal rôle. If we add that his perfect understanding of the military customs of his epoch always permitted him to foresee the faults which his adversaries would commit, and to take advantage of them, we shall have a view, succinct but as complete as possible, of the *simple* means which constituted his method. It may well be thought that the constant study which he made of the history of great captains was not lost upon him.

However powerful the interest which would attach to a more complete study, entering more into the details of the life and acts of this great military figure, even from our special naval point of view, I must here close this brief survey in order to take up another subject, of more direct interest because it affects us more nearly. I refer to what has been called *Napoleon's Naval Strategy*.

WAR ON THE SEA.

THE NAVAL STRATEGY OF NAPOLEON.

This matter is of special importance to us because its discussion will bring out the essential differences which exist between war on the sea and war on land.

There is no doubt whatever that Napoleon had a naval strategy, for he was too much a soldier not to feel profoundly that certain fundamental laws are true, whatever the circumstances, and that, in particular, naval operations are no more amenable to chance alone than land campaigns are. Moreover, to learn what his conceptions of naval strategy were, we have only to take his own words, which will greatly facilitate the investigation.

Possessed, ever after the campaign of Italy, by the fixed idea of overthrowing the English power, and too deeply penetrated by the true principles of war not to seek to strike at her very heart, he cherished the plan of an invasion of England.

On November 5, 1797, he wrote from Milan to the Directory: "*To undertake, with some probability of success, the English expedition, there would be required: (1) good naval officers; (2) a large number of well led troops in order to be able to threaten several points and to re-inforce the landing party; (3) an intelligent and vigorous admiral. I think Truguet the best . . .*"

Later he returns to the subject, this time specifying the most serious difficulties of the enterprise: "*Whatever efforts we may make,*" he writes from Paris on February 23, 1798, to the same Directory, "*we shall not acquire superior force on the seas for several years yet. An invasion of England without having command of the sea is the most difficult operation which has ever been undertaken. It is only possible by surprising a passage, either evading the squadron blockading Brest or the Texel, or crossing at night in small boats and arriving somewhere in Kent or Sussex after a passage of seven or eight hours. To do this we need long nights and therefore winter. April past, it is no longer possible to do anything. Any operation which might be attempted with boats during the summer, to take advantage of calms, would be impracticable, because the enemy would offer insurmountable obstacles to a landing and above all to a passage. Our Navy is as little prepared to-day as when the army of England was created, four months ago If, in view of the actual condition of our Navy, it is thought impossible to secure the prompt action which circumstances require, we must then give up all idea of an English*

expedition, and be satisfied, while continuing to threaten one, to fix our whole attention, and direct all our resources, upon the Rhine, in order to try to snatch Hannover and Hamburg from England—or even to make an expedition into the East which might endanger the commerce of India. And, if none of these three plans is possible, I see nothing else to be done except to make peace with England.”

How then can it be pretended that, in preparing his plan of an invasion of England, Napoleon ignored its difficulties? The foregoing letter proves, on the contrary, that none of them escaped his notice. He lays down clearly, first of all the principle of command of the sea, a principle whose consequences are of incalculable importance to the student of the philosophy of naval history. Doubtless, despairing of being able to meet this requirement, he does seek to escape from it by proposing a possible surprise; but in his case this is rather a consequence of his fixed idea, the destruction of the English power. Nurtured upon the study of Hannibal's method, he too wished to strike at the heart of his enemy, by attacking him on his own hearth, at the very source of his life. But if, for a moment, yielding to his impatience to obtain results, he cherishes the chimerical plan of violating the true principles of war and avoiding battle, when, a little later, the time for action comes, he returns of his own accord to the application of the principles which he, more than anyone else, has helped to make universally accepted.

The proof may be found in a note from Napoleon to the Minister of Marine, dated September, 1805.

“What was my intention in creating the flotilla of Boulogne? I intended to assemble forty or fifty war ships in the harbor of Martinique by combined movements from Toulon, Cadiz, Ferrol and Brest; to have them return suddenly to Boulogne; to find myself master of the sea for a fortnight; to have one hundred and fifty thousand men and ten thousand horses encamped on this coast, a flotilla of three or four thousand boats, and, when the arrival of my fleet was signalled, to land in England and seize London and Trinity House. This plan just missed success. If Admiral Villeneuve, instead of entering Ferrol, had been satisfied to unite with the Spanish squadron, and had then made sail for Brest to join forces with Admiral Ganteaume, my army would have landed and it would have been all up with England.”

"To make this project succeed, it was necessary to assemble one hundred and fifty thousand men at Boulogne, to have four thousand boats there and an immense quantity of stores, to embark all these, and yet to keep the enemy from suspecting my plans. I owe my success in this to my doing the opposite of what it seemed necessary for me to do. If fifty ships of the line were to come to protect the army's passage to England, transports alone were needed at Boulogne, and the profusion of galleys, gunboats, flatboats, shallops, etc., all armed vessels, was quite useless. If I had thus assembled four thousand vessels of transport, the enemy would without any doubt have seen that I expected my squadron to be present before attempting the passage. But by constructing galleys and gunboats, by arming all these vessels, I opposed cannon to cannon, war vessel to war vessel, and the enemy was deceived.

"He believed that I intended to force a passage by the sole use of the military strength of the flotilla. The idea of my true plan did not occur to him at all, and when, the movements of my squadrons having failed, he perceived the danger he had run, fear fell upon the councils of London, and all intelligent people admitted that never had England been so near to destruction."

The quotation, as may be seen, is well worth being given in full, for it is an example of magnificent strategy; its principles are faultless, and this gigantic plan might and ought to have succeeded. The necessity of command of the sea is set forth this time precisely and clearly. It is to obtain it, which can only be by actually having superior forces at the selected point, that he directed his squadrons for a time to avoid action, in order to bring about their concentration prior to the decisive operation.

Another advantage of this combination was that it divided the English naval forces sent forth in pursuit of different French squadrons of whose destination they were ignorant, and thus doubly inclined the balance of power to the side of France. This plan of operation also drew strength from its distinctly offensive character, and from the many advantages assured to the one of two adversaries who knows what he wants and whither he goes.

It suffices to call to mind the events of this year 1805, so justly celebrated in naval annals, to be sure that the Emperor was under no delusion when he hoped to keep his true design hidden from his enemies. Among the proofs of this there is none more decisive than the furious pursuit of Villeneuve's squadron by Nelson.

Would the illustrious English admiral have sought for traces of his enemy first upon the coasts of Africa, then in the Antilles, if he had so much as suspected his real destination? His letter to the Admiralty, after Villeneuve's first sortie, leaves no doubt as to his ignorance of the intentions of his adversary. "*Of two things one must be true,*" wrote he, "*either this squadron has returned to port disabled, or it has held its course to the East, and probably towards Egypt.*"

The incident of the brig *Curieux* meeting by chance the squadron of Villeneuve at sea and on her arrival in England causing, by the sensational news which she brought, important changes in the distribution of the English forces, ordered at once by the Admiralty, is further evidence.

Napoleon's strategic plan, then, was perfectly conceived; I have said that it ought to have succeeded, and, in fact, if the success did not equal the ingenuity of the combination, there are many causes worth examination to which it may be imputed.

In reality, although unaltered in its main features, this plan under pressure of circumstances undergoes some modifications in detail, at least during the time of its execution.

At the beginning the principal rôle fell to Latouche-Tréville, who was equal to it; this flag officer was to set sail from Toulon with his ten ships, to join to them at Cadiz the ship *Aigle*, to free from the blockade before Rochefort the five ships assembled there, and to enter the channel with these sixteen ships while Ganteaume held Cornwallis before Brest. The English at this moment had only seven or eight ships in the channel to oppose to this French naval force, their squadron of the Texel being unavailable on account of the necessity of blockading the Dutch squadron.

The concentration of superior forces in the channel was then not only possible, but probable; the death of Latouche-Tréville took from this plan its greatest chance of success.

Napoleon then changed the details of execution of his plan and conceived the ingenious scheme of concentrating his squadron in the Antilles, Villeneuve was to sail from Toulon, this time to make a junction with the Spanish Admiral Gravina, and to steer for America. Missiessy and Ganteaume had been instructed to proceed to the same destination, the first starting from Rochefort and the second from Brest. Why this concentration could not be effected is known. On the one hand, Villeneuve, after a first un-

fortunate sortie on January 18, had been obliged to delay his departure for two months in order to repair the damages done to his ships by storms, so that, when he reached the Antilles, Missiessy, recalled to Europe, had already gone. On the other hand, Ganteaume had been unable to find a single favorable occasion for breaking Cornwallis' strict blockade.

And yet, the master thought which directed the plan still retained all its value. In default of the reunion of all the French forces prior to any operation, numerical superiority, the end aimed at, could still be obtained. Villeneuve, setting out from the Antilles in his turn, was ordered to return to Ferrol, to take the fifteen ships which were to be there, and to proceed to Brest with a fleet then composed of thirty-five ships.

Cornwallis' fleet comprising but eighteen ships, the certain co-operation of Ganteaume in the attempt to break the blockade, gave to the French-Spanish forces a superiority so crushing as to enable them to count upon success. The entry into the channel of the fifty-five ships thus united was awaited by the Emperor with feverish impatience. The success of this strategic plan was probable this time again because the English continued unsuspecting of the exact objective at which he aimed. Even after the indecisive battle of Cape Finisterre, even after the delays at Vigo and Coruna, Napoleon's strategic concept retained its high value. "*Set forth,*" he wrote Villeneuve, "*your passage by itself alone makes us with certainty masters of England.*"

At that very moment Villeneuve could still make a junction with Allemand, Missiessy's successor in command of the Rochefort division, descend upon Brest with thirty-three ships, and beat Cornwallis, who had but eighteen. And to do so, the French commander-in-chief need only have had a tithe of that wonderful military judgment of his emperor, or indeed of Nelson, which urged those two great warriors to seek battle instead of avoiding it, to risk a few cards to win the game. We well know how on the contrary this game was irretrievably lost by Villeneuve's timidity and his retreat to Cadiz.

This study of Napoleon's strategy is an admirable lesson in affairs and furnishes matter for very valuable instruction from which at the present time we can derive benefit.

Thus, behold a remarkable plan of operations, conceived in accordance with the best principles of war, by a man of genius for

whom strategy has no secrets, and the execution of which is favored by the ignorance of adversaries who have failed to understand it. And yet it ends in a complete failure, and, still worse, in disaster.

This fact, inexplicable in the eyes of the uninstructed, results from causes, many in appearance, but really included in one single error committed by the emperor, and due to his ignorance of maritime affairs.

Without any doubt he lacked "the seaman" of the situation, capable of comprehending his views, of perceiving their greatness and assimilating them to the point of making them his own, a man sufficiently imbued with the true principles of warfare to assure success in their execution.

All the French admirals of the time were, without exception, second rate men, and the great master could not be near them to inspire them with his own ardor as he did in the case of his lieutenants in his campaigns on land.

"*The great weakness of our navy,*" he himself wrote to Lauriston on February 1, 1805, "*is that the men who command it are inexperienced in all the hazards of command.*"

But the absence of a faithful and intelligent interpreter of his military ideas is not enough to explain so great a failure. In his hour of exile, when Napoleon scrutinized his glorious past and sought the reason for the happenings of his reign, he made his full views known in the following statement which I have taken from the *Mémorial de Sainte Hélène*: "*I looked unceasingly for the right naval officer without being able to find him. In that profession there is a speciality, a technicality, which put a limit to all my conceptions. No sooner did I propose a new idea than I had Ganteaume and the Navy Department on my back. 'Sire, that is impossible. And why? Sire, the winds do not permit of it; and then the calms, the currents,' and I was stopped short.*"

"*If, instead of having to combat obstacles, I had met some one who agreed with me and furthered my views, what results might we not have obtained? But, during my reign, there never appeared in the Navy a single man who deviated from routine and knew how to originate.*"

Yes, it is very certain, he always lacked the true seaman, the necessary man of action, and this waste of energy upon the ordinary and inevitable difficulties of the profession, which a great

chief must accept as the consequence of the inseparable circumstances of this calling, superabundantly reveals it.

But there was something else. The letters in which the unfortunate Villeneuve complained of the deplorable condition of his squadron were not wholly the lamentations of a timid mind which responsibility crushes. It is only too certain that the crews were incomplete, that for want of money they lacked stores of the most urgent necessity, that the ships themselves were badly armed and badly equipped.

After the futile sortie of January 18, 1805, Villeneuve wrote: "*Ships thus equipped, ill manned, encumbered with troops, having rigging which is old and of bad quality, which, with the least wind, carry away their masts and tear their sails, which, in fine weather, spend the time in repairing the damages done by the wind, by the feebleness or the inexperience of their sailors; such ships, I say, are unfit for any undertaking.*" And, at the end of the campaign, he wrote again from Coruna, "*Never did such miserable ships put to sea. That is the primary cause of all our misfortunes.*"

And it is scarcely necessary to characterize the Spanish fleet, composed of "*the poorest ships that ever were sent to sea,*" and so well known to be such that Nelson, in a famous act of bravado ordered each of his captains to attack a French ship and took upon himself alone the charge of all the Spanish vessels.

The real error of Napoleon, then, was believing that great designs could be accomplished with so poor a naval instrument. Accustomed to improvise armies, to recruit heterogeneous bodies of men whom he galvanized by the all powerful influence of his command, he always fancied that the same would do in the navy.

On May 9, 1798, he directed the commandant at Toulon to supply the deficiency of sailors by putting on board the vessels of the fleet what remained of the sixth half brigade of artillery. On June 16 of the same year, he likewise embarked five hundred Turkish slaves at Malta for service in the fleet. He never really understood the quite peculiar needs of a great navy, the wise and methodical preparation, an important work absolutely requiring time, which is needed to bring the personnel and material of a fleet to the point of being ready to fight. It is possible to imagine an army composed of recruits hastily levied and combined, and to admit that under the impulse of an inspired general, it may do great things. A navy cannot be improvised; the mere habituation

to the abnormal medium in which it moves, the struggle against the fierce elements, which singularly complicates that against men, themselves demand a special and lengthy education of those who compose it. And this is still more true now when more complicated ships, filled with machinery, have pressing need of a trained personnel.

It was very far from rigorously correct, then, to trust the success of Napoleon's strategic plan to a simple arithmetical comparison. Really, the idea of "superiority of forces" in war is very far from being so simple a matter. And it is by no means certain that the fifty or fifty-five French and Spanish ships, had they succeeded in getting together, would have beaten the eighteen or twenty admirably prepared English ships which guarded the channel.

Nelson had but ten ships, Villeneuve had eighteen, and yet the former did not hesitate for a moment to pursue the latter to fight him. He knew his adversary and was sure that the superior worth of his own forces, moral and material, would more than compensate for his numerical inferiority. All these factors have weight in the true balance of forces.

The strategical lesson we have just learned is too important to us, even in its exposition of errors committed, for me not to anticipate a possible objection based upon a legend originated in the camp at Boulogne and tending to show that Napoleon's preparation was a mere feint. The emperor himself did justice to this story in his *Mémoires*: "*The invasion of England has always been thought possible, and the landing once effected, the capture of London was inevitable. Master of London, a very powerful party would have risen against the oligarchy. Did Hannibal crossing the Alps, or Cæsar landing in Epirus or Africa, look backward? London is but a little way from Calais; and the English army, scattered for the defence of the coast, would not be concentrated in time, the landing once accomplished. Doubtless this expedition could not have been made with one army corps; but it was sure with one hundred and sixty thousand men, who would have been at London's gates five days after their disembarkation. The flotillas were merely intended to land these one hundred and sixty thousand men, and to get possession of all the shallow places. The passage was to have been made under the protection of a squadron assembled at Martinique and coming*

thence under a press of sail to Boulogne; if this plan of assembling the squadron failed one year, it would succeed another time. Fifty ships setting out from Toulon, from Brest, from Rochefort, from Lorient and from Cadiz, meeting at Martinique, could appear off Boulogne and assure the landing in England while the English squadrons were sailing the seas to cover the two Indies."

Napoleon has made his conception still clearer in the following declarations, found in the *Mémorial de Sainte-Hélène*: "*Some thought my invasion was a foolish threat, because they saw no reasonable means of attempting it; but I had set about it from far off, and operated without being seen. I had scattered all our ships; the English had to follow them over the world; but ours had the single object of coming back unexpectedly, all together, to meet in one body on our coast. I was to have seventy or eighty French or Spanish ships in the channel; I had reckoned that I should remain THE MASTER DURING TWO MONTHS. I had three or four thousand small vessels which only awaited the signal; my hundred thousand men every day went through the exercise of embarking and disembarking, like all the other drills; they were zealous and willing . . .*"

I have purposely underlined certain words of this statement, because they show the evolution which had taken place in the Emperor's mind since June 9, 1805, when he wrote in these terms: "*I really do not know what sort of precaution England can take to shelter herself from the terrible risk she is in. A nation is very foolish, when she has no fortifications and no army, to expose herself to the chance of having an army of one hundred thousand picked men and veterans descend upon her. That is what the flotilla is really for; it costs money, but it is only necessary to be MASTER OF THE SEA FOR SIX HOURS that England may cease to live.*"

The comparison of the underlined words in the two quotations indicates the evolution I just spoke of. When he wrote the earlier, Napoleon was under the dominating impression of his hot fight with his implacable enemy; the desire to reach her at any cost, the impatience to strike to her heart, obscured his judgment, and so much the more so that his ignorance of the essential needs of preparation for naval war concealed from him the real difficulties of his undertaking.

How otherwise can we explain his astonishment and disdain of

WAR ON THE SEA.

a people who, contrary to the established rules, pretended to defend itself by other means than troops and fortifications?

It must not be forgotten, in fact, that this same man had taught, better than anyone else, to a conquered world, that the best of all defences for a nation was the vigorous attack of victorious armies.

Later, on the rock of Saint Helena, reviewing his whole life and pondering the lessons of experience, he had had, on the contrary, the clear vision of the great primary rôle which freedom of the seas plays in naval operations; he had thus understood that on the sea, as well as on land, the protection of *acting forces* is the best of all, and that on this point there is real unity of military concept.

It is not during a few hours only that it would have been necessary to be master of the sea, nor even during a few weeks; it was necessary to conquer this command of the sea definitely, by the energetic action of a powerful fleet, superior in moral and material force to that of England. This result accomplished would have made any landing in England useless, for the government of that country would have humbly sued for peace.

It is altogether interesting to observe, in ending, that Napoleon, great admirer of Hannibal, imbued with the military ideas of the Carthaginian general, was like him to succumb from lack of naval forces, and to lose the empire of the world because he had lost that of the seas.

Waterloo was but the coup de grâce; Trafalgar was really the mortal wound.

CHAPTER II.

AN HISTORICAL STUDY OF THE STRATEGY AND TACTICS OF DUQUESNE, TOURVILLE, SUFFREN AND NELSON.

In the preceding chapter we sought, in the history of great military wars, the principles which generals have obeyed in the pursuit of success; we now take up a similar study for naval wars, and it would be superfluous to enlarge upon the exceptional interest of the latter to naval officers.

The interest will be so much the more engrossing as we shall draw our documents from original sources, and shall take their thoughts from the very lips of famous seamen.

Assuming once more that the *facts* of history are known to all of us, I shall limit myself to recalling that, although the history of the French navy registers many reverses, it also contains many glorious pages. Victories and defeats alike will serve to bring out precious lessons in military precepts.

DUQUESNE.

In a letter from the celebrated Duquesne to M. de Vivonne, that great seaman develops his views upon war with a conciseness which makes them worthy of reproduction. Charged with carrying to Messina, with a squadron of twenty-four ships, troops to re-enforce M. de Vivonne, Duquesne had brought his fleet to the south of Italy, when, on August 13, 1676, the lookouts reported a number of sails which, on getting nearer, were recognized to be those of the Dutch squadron, also of twenty-four ships. Duquesne at once prepared for combat, but, favored by night, the enemy's fleet disappeared.

In the letter referred to, Duquesne thus expresses himself: "*They planned to avoid us; nevertheless, had I not been burdened with this infantry, of whom a large number are taken sick every day, and with this convoy of provisions for the galleys, I would have followed and looked everywhere for that fleet until I came up with it or drove it from the seas. It being an important consideration to save this infantry, who would destroy our crews by the*

dysentery and bloody flux which are among them, and to prevent our being obliged within a few days to abandon the sea for lack of water, I thereupon assembled the general officers and decided that we would take advantage of the wind to reach the light house, send the convoy in and land the infantry there . . . and in the meantime that the fleet shall keep under sail or at anchor, in order afterwards, if you approve of it, immediately to put to sea and catch up with that fleet of the enemy, to fight them or drive them wholly from these seas, according to the orders of His Majesty."

Thus we have it precise and clear. Despite the unfavorable conditions resulting from the use of his ships as transports—and we know that, too often alas, the exclusively fighting rôle of a naval force has been ignored—the great seaman does not hesitate to seek battle. He feels that no more certain method of fulfilling his mission exists than to destroy the hostile naval force. And when circumstances independent of his will have lost him the opportunity, he wishes, like the great warrior that he is, to seize upon it again and, dropping everything else, to hasten in search of the Dutch squadron to destroy it. That was the principal objective.

The battles of Stromboli and of Agosta, against an adversary in all respects worthy of him, Ruyter, had already shown Duquesne's exceptional worth and how well he understood war.

Thus, as his faithful historian Jal very judiciously observes, Duquesne disapproved of homœopathic doses, of operations timidly prepared with insufficient means. He wished "*strong squadrons, serious demonstrations, enterprises greatly conceived and carried out with the energy which facilitates and assures success.*"

In the struggle against the Barbary States, he advised the substitution for small armaments of others capable, by the fear they would inspire or by the force they could display, of forcing the Moors to respect treaties. He had a clear understanding of the fact that the idea of force dominates the entire philosophy of war; it is its reason, its object and its success.

In a letter written from Messina to Colbert, on May 7, 1676, the Chevalier de Tourville paid a notable compliment to Duquesne in these terms: "*I must tell you, though as regards my own affairs I complain of no one, that there are pests in this corps who turn every thing upside down, and who are such great blunderers that*

if we pay any attention to them we shall find the best acts of M. de Quesne, and those of the greater part of the navy, will come to nothing at a time when he is doing extraordinary deeds for the King's service."

In another letter of August 26 of the same year, also addressed to Colbert, the same Tourville says again: "*You will have learned that we have been unfortunate, that fourteen Dutch ships escaped from our hands by fleeing without pause. M. du Quesne took every imaginable care and missed doing nothing which could possibly be done in order to catch them, but their good luck saved them during the night without our being able to get near enough to observe them, although M. du Quesne stood for them under a press of sail. If we had not been burdened with troops, and most of the ships wanting water, M. du Quesne would have been seeking them everywhere.*"

TOURVILLE.

No one could be better fitted than Tourville to express an appreciation of a great captain like Duquesne, whom he saw at work and under whose orders he served. Perhaps no admiral ever had to a higher degree than himself the profound perception of the rules of war and of the necessity of destroying the principal forces of the adversary in order to fully accomplish the objects of a war.

The study of Tourville's campaigns is particularly profitable and interesting on this account; it justifies the important place we are going to give him, and the more so because his very active correspondence, still in existence, lets us learn all his strategic ideas; it is, consequently, a real lesson in affairs.

Tourville had the exceptional good fortune to unite in himself almost all the qualities of a great seaman; sea knowledge, quick perception, coolness, judgment, intuition of the right thing to do, profound sense of opportunities, etc., not to speak of native courage. He gave the measure of these remarkable gifts when, in 1689, setting out from Toulon with a fleet of twenty vessels, he brought about its junction at Brest with the fleet of Chateau-Renaud, in spite of the blockade of that port by the English forces.

The immense superiority of the latter, who mustered seventy sails, made any plan of forcing a passage impossible; on the other hand, a junction with Chateau-Renaud's squadron alone could re-

establish the balance of forces. Tourville solved this difficult problem by his skillful seamanship. Counting on its being impossible for a blockading squadron to hold on at sea off the island of Ouessant with wind from the southwest, he waited patiently, standing back and forth off that island, notwithstanding the fatigues of a passage already long, with badly armed and scantily provisioned ships, until the wind came out as he wished. After six days' waiting, the breeze settled at southwest. Tourville immediately stood for the Iroise passage and entered Brest with a fair wind under the very eyes of the English squadron well to leeward. A complete success thus crowned his intelligent previsions. Objection might be made to this interesting example of military synthesis on the ground that the conditions of modern naval wars are quite different, and that steamships are no longer dependent upon the wind. I do not deny it; but however powerful the machinery of modern battle ships, there will always be conditions of the sea in which they will not be sufficiently so to overcome all difficulties. After a heavy blow from the southwest, such as frequently occur on the coast of Brittany for example, we can foresee that the circle of a naval force blockading Brest would be very considerably opened out; an energetic and resolute chief will know as well to-day as in Tourville's time how to profit by the aid of the elements under similar circumstances. The example, therefore, has in no way lost its value.

The best known, because in common eyes apparently the most brilliant, episode of Tourville's military career, is the naval victory of Beachy Head, won over the English-Dutch fleet commanded by Torrington.

Tourville had the advantage of numbers, seventy ships against fifty, but was to leeward, an unfavorable position which, during the fortnight's pursuit of the allied fleet, had as yet given him no opportunity of engaging it. The day of the battle, Torrington having decided to bear down upon the French squadron, it became possible to fight. In spite of the loss of six Dutch ships, the action might seem to have been indecisive, since the two fleets, English and French, separated without serious loss to either. But such was not the case, and we must modify this superficial view when we note, with Father Hoste, who was present by Tourville's side, that for a fortnight after this indecisive battle Tourville pursued the hostile forces with passionate ardor from anchorage to anchor-

WAR ON THE SEA.

age, and burned and drove on shore thirteen of their ships of the line. Do we not there see the certain proof of disorder spread through the English fleet, a consequence of their defeat? And should another proof be needed, the mere fact of the court-martial of Admiral Torrington in England would suffice to prove that the English people were far from satisfied with the results of the engagement.

However, this result in itself is of little importance to us; we find the outline of the true doctrine which we are looking for in a letter from Tourville to Seignelay, of July 13, 1690.

"Since our fight," writes Tourville, *"we have not lost sight of the enemy, getting under weigh with every tide; but for the calms we would have had twelve or fourteen Dutch ships. Most of them being dismasted, they are the more easily towed by their boats; nevertheless the night of the 10th and 11th, they had to set fire to two of their ships, one a Dutch flagship of eighty guns and another of seventy guns. I detached some ships to follow a great Dutch three-decker which, having only a foremast, stood down the coast before the wind; I also sent others to try to catch six vessels which remained to leeward of the enemy's fleet; I am still pursuing them regardless of the fatigue of the men and of the weakened condition of our own masts. Like us they take advantage of the tides and of the wind, which has all along been favorable to their drawing close in to the dunes; I am persuaded that if I had been to windward of them after the fight, I should have wholly destroyed them."*

Here we find a doctrine which begins to be familiar to us, and to stand forth from the study of the wars of the past with the force of a principle. Like Duquesne, Tourville regarded the destruction of the enemy's forces as a necessity, and having laid this down as his objective, he pursued its realization with his whole energy and with all his resources. He could not be content with an incomplete success, and used all the ardor and activity necessary to make it decisive in harassing the enemy without a moment's respite. Nothing but the circumstances of unfavorable weather could snatch from him the complete victory he sought; he had done everything to obtain it.

If Tourville's strategy can justly be considered a model, it is because, in the very circumstances where he himself knew defeat, it was precisely owing to his unwillingness to follow the counsels

of his own genius and experience; and it is also because of having imposed upon him absurd plans that the government of France was beaten.

By an order dated May 26, 1691, Tourville was instructed to set sail with his squadron and to cruise at the mouth of the Channel with a view to the capture of a rich Dutch-English convoy from Smyrna. The principal objective imperatively assigned to Tourville by these orders was the capture of this convoy, for, according to their words: "*His Majesty graciously informed him that the service he would render by the capture of this fleet, which is worth thirty millions, would be more important for the execution of his Majesty's designs than if he should win a second victory over the enemy's naval forces.*"

The poverty of this conception confounds us. Supposing that it was possible, would not the destruction of the hostile naval forces plainly have made the capture of the convoy, thenceforth defenceless, more certain than an attempt to surprise it possibly could?

To still further specify the unfortunate ideas of the naval authorities and to narrow still further the bounds set to Tourville's spirit, the order contained the following directions:

"Should the enemy go out of the Channel and should they be in superior numbers, His Majesty forbids his attacking them; he orders him, on the contrary, to avoid them, sparing as far as possible the reputation of his fleet, and taking advantage of any favorable opportunities which his capacity and experience may bring about, it being certain that there can be such conditions at sea as will cause the lesser number to become superior to the greater."

I refrain from formulating any opinion on this dictum; for Tourville took it upon himself to do so in a masterly manner in a marginal note, written by his own hand beneath the above quoted instructions.

"We should be informed," says he, *"as to the number and strength of the war vessels in the enemy's fleet; we need not hesitate to attack them if their forces are only greater than ours by a small number of ships, six, seven or even eight. As I have already had the honor to say to the king, from the moment that two fleets are in sight of one another, so as to be able to recognize each other, it is impossible to avoid a fight. Should one hostile fleet, being to windward, wish to engage the other, at a season when the*

WAR ON THE SEA.

night is only three or four hours long and no sudden storm will occur to facilitate escape, the latter would have nothing to do but abandon all his ships except the very fast ones, a procedure quite inadmissible because it would demoralize the crews to such an extent as to make it very difficult to reassure them when it became necessary to fight; All flag officers and those who have sea experience will accept this as a fact, and that the better part (although inferior) is to await the enemy in good order and with firm countenance."

"Only people who have no knowledge of the profession," he further says, "can suppose that two fleets, during a campaign, can be in sight of one another without engaging, unless they so wish, and if any dare to maintain such a view, I think them very presumptuous and that they greatly compromise the king's service."

These few lines contain some of the essential elements of an entire doctrine of naval war; the primary importance of the battle; the impossibility of refusing it when one of two squadrons in sight of one another seeks it, the necessity of securing a homogeneous force by grouping together ships of the same speed, the influence of the moral factor upon the personnel, etc.; all these measure the chasm which separates the bureaucratic conception of war, which prescribes the avoidance of battle, from that wholly military one which, the contrary, faces it as the ultimate aim.

Let us be very clear on this point, for though Tourville's note might seem to make further emphasis unnecessary, we must avoid even the possibility of a misunderstanding on this subject.

To seek action, as the illustrious seaman explicitly states, does not at all mean to engage blindly, in any case, whatever the circumstances or the relative strength of the opposing forces. It was precisely because he fully understood the impossibility of holding his own with fifty-five ships against the ninety of the English fleet that he tried to make plain the inanity of this idea of capturing a convoy without running the risk of battle. For the same reason, when urged to order all his forces to put into Belle Isle, he vehemently objected. That place seemed to him badly chosen for such an assemblage: "*It is of the greatest importance that the entire fleet be kept together when they put into port on account of the disadvantages which may result from a separation.*"

Under such unfavorable conditions, only his consummate skill as a seaman enabled him to keep the sea for fifty days in that

immortal *deep sea* campaign and to bring his fleet back uninjured to Brest despite the pursuit and constant nearness of the enemy.

The narrow and despicable object sought by Pontchartrain, the capture of the convoy from Smyrna, failed of accomplishment, as Tourville had predicted.

To the reproach of the head of the navy department on the subject of his putting in to Bertheaume after the campaign, though formally forbidden to do so, he replies: "*It would be much more agreeable to me to fight the enemy than to avoid him, which latter course has not a few difficulties.*" And again he says: "*To be able to prevent a hostile fleet from accomplishing its purpose, we must be in condition to follow without losing sight of it and to fight it.*"

Events were close at hand which would show how entirely the naval administration of 1692 misconceived the admirable war instrument which it possessed in Tourville. How could it be otherwise when the destinies of the navy were confined to a man like Pontchartrain, who joined with Louvois in proposing to the king to replace this navy *which cost too much and was good for nothing but defending the coast* by troops. Such ideas, as false as fatal, explain the naval disasters which were their natural outcome.

New instructions announced to Tourville what was expected of him. The matter under consideration was one of those numerous plans for an invasion of England which mark the history of the French-English wars and of which the result was always negative, because the conditions which, before any trial, made them chimerical were never recognized.

His orders directed him to set sail from Brest *even should he have information that the enemy was outside with a greater number of ships than those which were capable of following him*; they added that in the case of a meeting an imperative order was given to him to engage them *no matter what their numbers*. It is best to quote the text of what followed: "*If when he has conducted his ships to the place of landing or when it has begun, the enemy comes to attack him with a greater number of vessels than are under his command, His Majesty directs him to fight them and to persist in fighting, so that, even should he be worsted, the enemy may not be able to prevent finishing the landing.*"

One need not be greatly learned in naval matters to perceive all the folly and impotence of these strange ideas. Those who

assumed to order battle under conditions of immense inferiority had scarcely any conception of what *force* means. Nor had they any understanding of naval war when they evoked the possibility of finishing the operations of a disembarkation under the fire of an enemy of superior strength. What the logical result of this governmental anarchy was is well known; the disaster of La Hogue, when Tourville saved at least the honor of the French navy, despite the extraordinary disproportion of the opposing fleets, forty-four French vessels against ninety English-Dutch.

But a new and very instructive lesson is to be drawn from these events; it is the disastrous influence upon the results of a war campaign exercised by the remote, narrow and vexatious action of an ignorant and altogether incompetent administration.

As Tourville himself said: "*I beg you to believe that none wishes more than I to accomplish something, but my professional knowledge has compelled me to take precautions, and I have always noticed that officers who in Paris arranged the finest enterprises in the world became of quite a different opinion when here.*"

The restrictions placed upon the military operations of great leaders by too strict instructions, most often formulated without knowledge of technical or fortuitous necessities, have never led, so far as I know, to fortunate results. The history of the wars of all times and all countries furnishes, on the contrary, numerous examples of the unhappy part played in final failure by the untimely interference of the controlling powers in the operations in the field.

The Spanish-American war, that which recently took place in the far East, without counting many others, will allow us to sustain this conclusion.

This would be the proper place to discuss the American War of Independence, interesting in so many respects; but I think it more profitable to postpone its examination to the chapter on authors, when we shall set forth Captain Mahan's theories.

SUFFREN.

The transition from Tourville to Suffren is quite natural: the two great seamen really based their strategy on almost identical rules, deriving always from the same principles, for it was above all by the incomparable flashes of genius of his strategy that Suffren has made his name famous in all the navies of the world

and has left to us, French naval officers, imperishable memories. It is not unnecessary to insist upon this important point, for in a book on naval strategy, which I should not mention were it not by a former naval officer, this astonishing opinion may be read: "*Suffren was above all a tactician!!!*" Such a remarkable conclusion can only be explained by a complete misunderstanding of history or by a much too superficial interpretation of facts.

If Suffren was actually ahead of his times in tactics; if he blazed the way in which Nelson, following him, found on the field of battle his most glorious successes, as we shall soon see in detail, we must repeat that it is above all by his magnificent conception of the art of high war that he became immortal.

Even before an important command had permitted him to display the full measure of his military genius, he had shown on many occasions how well he understood war, and his *method*, as we are about to demonstrate, resembles that which is already familiar to us.

In 1778, as captain of a ship in d'Estaing's squadron, he spent the whole time of that campaign in America, in chafing like a blooded horse under the direction of an incapable hand. The many echos of his discontent may be found in his correspondence.

During the expedition against Saint Lucia, the English Admiral Barrington is surprised at anchor with seven ships; d'Estaing could easily have finished him, for he had twelve. But he preferred to attempt a landing, which failed; yet Suffren had written to him on this occasion: "*Let us destroy this squadron; their army, ill supplied, in a difficult country, would surely be forced to surrender; let Byron come afterwards, he will then be welcome.*"

And thereupon appears, with startling clearness, the superiority of this conception of war, which fixes as its principal objective the destruction of the naval forces of the enemy. In this example of Saint Lucia, was it not absolutely sure that, Barrington's fleet once annihilated, nothing could relieve the island from the necessity of surrender, in the absence of any possible help? Better still, after Barrington's defeat, the French fleet could and must have conquered that of Byron; it would then have been mistress of the sea. Having failed to prevent the junction of the two English admirals, it let slip the victory which was in its grasp. The precise significance of *superior forces* is here exemplified, and the lesson to be learned is that in war it is not necessary to try to have

absolute superiority all the time and everywhere. Such an endeavor would usually be in vain; but from the classic fight of the Horatii and the Curiatii till now, it is relative superiority, at one place and under fixed conditions, that it is important to secure. If d'Estaing had understood this he would have beaten the English in detail, Byron after Barrington, despite his inferiority relative to their joint forces. As for Suffren, he understood it, and already he was giving proof of the marvelous intuition in matters of war which was to immortalize his name and the campaign of India.

"Our campaign has been a succession of vicissitudes, of good fortune, of evil fortune, and of follies," he wrote after the Saint Lucia affair, where his counsels had been so little attended to, *"During my thirty-five years of service I have seen many acts of folly, but never so great a concourse of them . . . the foolish manœuvres that have been made, the silly and treacherous counsels that have been given, could hardly be imagined. Finally, I have fallen into disfavor for advising the attack of seven small ships with twelve big ones, because some of them were defended by some shore batteries."*

After the junction of the two English squadrons, which it had not depended upon him to prevent, he wrote further: *"What is very much to be wished is that all this should be finished. A campaign a year long is very tiresome, especially when, having had ten chances to accomplish great things, we have done only what is foolish . . . I am full of disgust . . ."*

In another letter he also said: *"Otherwise led, we would have been loaded with glory and riches, but we shall get neither one nor the other . . ."*

The opportunity was close at hand for this ardent and energetic nature to show the full scope of its military worth.

Two years later he sailed from Brest, with six ships and eight transports under his command, commissioned to proceed to the Cape of Good Hope, to there disembark the troops and prevent the occupation of that Dutch colony by the fleet of Commodore Johnston, sent there by England.

At the very beginning of this campaign, a war problem of the greatest importance presented itself without warning to Suffren; I refer to the incident known as the battle of Porto Praya. The adversary whom he expected to find south of Africa unexpectedly appeared before him, and he had to choose between two courses:

WAR ON THE SEA.

either to take advantage of his momentary delay at anchor by proceeding with all haste and reaching the destination before him, or to attack and endeavor to destroy him.

For a man like Suffren, the choice could not be doubtful; since the only possible obstacle to the accomplishment of his mission was Johnston's squadron, the plan of suppressing that obstacle could not but enforce itself upon his mind.

The occasion was truly too favorable not to be seized, and that is why Suffren attacked. He even attacked with a little too much impetuosity, and if the strategical conception is without flaw, his tactical plan is far from meriting such praise. His orders, ill understood or badly executed by his captains, did not allow him to derive from the battle all the profit he had a right to expect. But, though the English squadron was not annihilated, it was at least sufficiently injured no longer to be in condition to proceed to the Cape until after serious repairs. Suffren's mission was then successfully accomplished, and that is the really important matter.

But this incomplete result could not measure up to the genius of Suffren. "*Porto Praya could and should have immortalized me,*" he wrote; "*I have missed, or have been made to miss, a unique chance. With my five ships I was able to make peace, and a glorious peace. But it was not so; that battle is of those which decide nothing, which are soon forgotten.*"

This letter tells more than many facts how Suffren understood war; in another he added: "*I have missed a chance to do great things with small means; I am inconsolable.*" Later on he was greatly to rehabilitate himself.

Thus, from the very beginning of his career as a military commander, his conception of war appears clearly and can be summed up in a brief formula: to consider the fleets of the enemy as the principal force which must be destroyed and reduced to impotence in order the more surely to accomplish the object of the war.

His wonderful Indian campaign afforded him means of applying his formula and of bringing out all its remarkable value.

To understand the full importance of the admirable lesson in naval matters which Suffren has bequeathed for our meditation, it is indispensable to make a rapid survey of all the difficulties with which he had to grapple.

Set forth from the Isle of France with his fleet, to carry on war on a coast wholly in possession of the English, he had at his dispo-

sition neither a harbor, nor a place of shelter against bad weather, nor any base of operations where he could repair or revictual.

And yet he did not hesitate, despite these unfavorable conditions, to push resolutely in pursuit of the English fleet under Hughes.

Sadras, Providien, Negapatam, Trincomalee, and Cuddalore, so many desperate and glorious combats, are the landmarks of a memorable campaign, infinitely more fruitful in the lessons of a wise system of war than in immediate results. Not one of these engagements was really decisive; but if Suffren did not succeed in satisfying his tenacious desire to ruin completely the English naval power in the Indian ocean, it was always the fault of his captains. It was this great seaman's fate never to have under his orders lieutenants capable of understanding his ideas, which were of too high an order for them, and which moreover shocked the timid traditions of the French navy of that period. He must have seemed, in their eyes, a sort of naval revolutionary.

Thus, in his correspondence, he gives vent, after each of his battles, to bitter complaints against his captains who, whether because they did not understand his orders or his signals, or because they wished to protest, in a truly unworthy manner, against the exceptional fatigues that their terrible chief imposed upon them, took but an indifferent and backward part in those battles.

His orders and his signals, nevertheless, deserved better; for in tactics, especially in its fundamental conceptions, Suffren was before all an originator and inaugurated the method of fighting which Nelson adopted and by which he obtained his greatest results. Until Suffren's time, in fact, battles were fought in what may be called the classic style, ship opposed to ship, in two parallel lines, and were nothing more than aggregations of duels.

Suffren overturns this tradition, pushing to its logical conclusion the profound sense which he has of the idea of *force*. He seeks to bring the whole strength of all his forces to bear together against only a portion of the enemy's fleet. Thereby he merely carries out upon the sea the principles already applied by great military leaders on the land.

The English historian Clerk wrote on this subject: "*M. Suffren not having had the hoped for success in the attack upon the rear of the British squadron the 17th February, his attempt upon*

the van, equally well concerted on this occasion, evidently proves him to be an officer of genius and great enterprise."

"If M. Suffren had wind enough first to bring down the van of his fleet to the attack of the British, and afterwards to bring up the rear division to support it, even within pistol shot of the British center; and if the ships in the British rear could not in time get up to annoy a crippled enemy, this the more particularly illustrates the propriety and practicability of bringing up and directing the whole, or any part of a force, against a smaller part of the force of an enemy; and that the effect ought to have important consequences, in battles at sea, as well as in battles at land."

It is true then that Suffren had the making of an incomparable tactician, because he felt the necessity of revolutionizing manœuvres which were too much regulated, too confined, but it is also exact to say that he was not complete as a tactician, whereas he will always be a model, without blemish, in the matter of strategy. He did not take enough account, in fact, of the inexperience of his captains, and he did not take enough care to make them understand his plans before battle. That alone explains the persistence with which those captains held back from full co-operation with him in all his battles, without exception, and thus compromised his success.

After having noted that Suffren's military genius lacked nothing in knowledge of principles, his unerring strategy above all demands our attention.

Among the deeds of that fine campaign of India, the taking of Trincomalee is particularly interesting. To be able to carry on a war to the death, the French fleet had to have what is nowadays called a "point d'appui," and has always been a base of operations. Profiting by the absence of the English fleet, which had taken shelter in Madras for repairs after the battle of Negapatam, while he did the same in the open roadstead of Cuddalore, and also speculating upon the advantage which the southwest monsoon gave him by putting his adversary to leeward, Suffren appeared before Trincomalee, disembarked his troops, and within six days, by the activity and vigor of his attack, as well as by the mildness of the terms he offered, brought about the surrender of the place. This activity and this suavity were explained by Suffren's feeling that such an enterprise could only be justified in a military sense on the strict condition of being carried on out of sight of a hostile

fleet. On the eighth day the latter actually appeared, but found the place taken. And this time once more the great French seaman had accomplished a masterpiece of war.

He had shown, on another occasion, to what an extent he realized the high responsibilities of a great military chief's mission. Called back, by instructions received from the minister, to the Isle of France, he did not hesitate to disregard them, for he would have considered it desertion to abandon a cruise which already had raised so high the prestige of French arms and shown to our enemies, as well to our allies in India, that there still existed a French navy.

This example of a courage unfortunately too rare, the *courage to assume responsibilities*, is worthy of much meditation; we must not be astonished at finding it in the great seaman we are discussing, for it has been one of the principal virtues of all the great warriors of all ages.

After the battle of Trincomalee, which followed the capture of that place, Suffren wrote to de Castries: "*I have just lost the chance of destroying the English squadron . . . It is frightful to have been four times in a position to destroy the English squadron and that it still exists.*"

These few words contain in condensed form the whole theory of war; for us they now no longer express new ideas. We shall come upon them again more than once.

Suffren, as well as others, understood the whole importance of speed, when in his letters he did not cease to advocate copper sheathing ships and also to complain of the lack of frigates which prevented his pursuing the enemy; nor did he deplore less the lack of homogeneousness of his squadron, made up of unlike unities, a capital defect which was the most frequent cause of his ships going into action in disorder.

The results of this marvelous campaign have been summed up in the inscription upon the pedestal of the statue erected to Suffren: "*The Cape protected, Trincomalee captured, Cuddalore delivered, India defended, six glorious battles.*"

We seem to be dreaming, after that, when we recall that scarcely a few years ago a minister of marine, questioned as to the theories of war then favored by the Naval General Staff, replied: "*On no account will we recommence Suffren's campaign.*" Which amounted to saying that we refused in advance to add another to

WAR ON THE SEA.

what is incontestably one of the most glorious pages of French naval history.

To keep the sea without let up, to winter on an inhospitable coast, to fall upon the naval enemy to fight him to a finish and destroy him, finally to win command of the sea, such were Suffren's deeds. Few laurels can be compared with his.

NELSON.

The distinction between Suffren and Nelson lies in the different instruments at their disposal and, to a notable degree, in their luck. While the former was the misunderstood leader of a poorly armed and badly trained fleet, and had at his disposal only precarious resources, and under his orders only mediocre and undisciplined officers; the latter had the good fortune to command homogeneous squadrons, wonderfully prepared by his predecessors, crews accustomed by very hard cruising to all the surprises of the sea, subordinates, all fine sailors, who could understand and assimilate all his war plans.

But if the instruments differ, the principles are identical, and the rules which both obeyed were in all respects comparable.

Even before he had assumed the heavy responsibilities of chief command, Nelson also had made known, on many occasions, how he understood war. After the naval battle of March 14, 1795, in the Gulf of Genoa, in which he had taken part under Admiral Hotham, convinced of the necessity of pursuing without rest the French squadron which, if not completely beaten, was at least demoralized as the result of an indecisive battle, Nelson went to see his chief to induce him to order the pursuit. The English admiral, satisfied with his partial success—with what he considered a good day's work—refused to consent to it. Regarding which Nelson wrote: "*Now, had we taken ten sail, and had allowed the eleventh to escape when it had been possible to have got at her, I could never have called it well done. In short, I wish to be an Admiral and in command of the English fleet; I should very soon either do much, or be ruined. My disposition cannot bear tame and slow measures. Sure I am, had I commanded our fleet on the 14th, that either the whole French fleet would have graced my triumph, or I should have been in a confounded scrape.*"

These words are a veritable confession of faith on the part of the great leader, the exposition of a doctrine which he was later

on to apply with so great a mastery, and which he had drawn from the very sources of military history. They include moreover an idea which cannot be too much pondered, that is so say that war is not to be waged without risks. For what is war in reality, if not a game, the most terrible of all, since the stakes are human lives, the destinies of entire races? One might as well say that he would never take any chance when he gambled.

Activity was also Nelson's chief characteristic: "*Time is our best ally, and I hope we shall not soon give her up, as all our allies have given us up. Time is everything; five minutes makes the difference between victory and defeat.*"

He had also to the highest degree the courage to assume responsibilities. Who does not know of his celebrated act of disobedience to Admiral Parker's signals at Copenhagen? If he had obeyed those orders, which directed him to cease firing and withdraw, he would certainly have endangered his squadron, forced to pass through a narrow channel under the fire of the coast batteries. The intuition of his military genius must then have enjoined upon him as a necessity what, taken in its narrowest sense, was an infraction of discipline.

But it is above all in his operations against the French fleets that his deeds of war shine most brightly.

In the first phase of this naval struggle, in furious chase after the French squadron which carried Bonaparte and his fortunes to Egypt, he reaches Alexandria before it, puts to sea again at once, in the belief that he is on the wrong scent, cruises back and forth in the Mediterranean and finally meets it at Aboukir, where he destroys it.

Vainly would one seek in naval history for a more striking example of the importance of speed in the pursuit of an objective, and, in Nelson's eyes, all other considerations were secondary and lost sight of in comparison with this objective. To ruin the French naval power and strangle at their birth the projects of Bonaparte, one measure only seemed to him efficacious, and that was the annihilation of the fleet. And in his tenacious purpose to attain this object there is to be found, besides its faultless principle, the marvel of the great English admiral's naval strategy. His tactics is no less remarkable. Appearing unexpectedly before the French fleet, which was at anchor, unguarded, in Aboukir bay, and, with culpable carelessness, was absorbed in taking in water,

he attacks it without hesitation, and, to better crush it, brings half the French ships between two fires by anchoring a number of his own ships inshore of the leading ones. By this bold manœuvre, he gave a new demonstration of the naval theorem of superior forces.

But it is especially in the second phase of this struggle, that which ended in the disaster of Trafalgar, that Nelson's military conceptions offer us the largest field from which to gather a rich and interesting harvest ; on that sad page there is much for us to learn.

In the strict blockade of Toulon and the coast of Provence, maintained through stress of weather, he already points out to us a lesson by which we can profit even now. Men and officers inured to hardships, ready for all the trials of the most difficult seafaring, must be trained at sea, in conflict with its thousand changing phases, and nowhere else. Villeneuve's men, relaxed by too long a stay in the harbor of Toulon, were no match for those of Nelson.

Note this well, for in the game of war no cards are negligible.

The French fleet, having effected a first sortie, is obliged to return to port, partially disabled and much tried by a violent storm which Nelson had sustained in the excellent state which the sea habit alone can give.

Convinced that the French squadron on leaving Toulon had stood for the eastern part of the Mediterranean, the English admiral hastens in pursuit. There were two contingencies to be faced : either the French squadron, scattered by the storm, had returned to port, or, in spite of the damages of some ships, it had continued on its course towards a destination which he guessed to be the Levant.

Thus was laid before him for action one of the many war problems that a military chief has to solve with no other aid than his own sagacity.

He seized upon the solution of pursuit as the one with the maximum of chances in its favor, being very certain that in case the fleet he was harassing had taken refuge in port he would be able quickly to find it there. And, actually, Nelson pressed on to Alexandria, and learning that the French fleet had not appeared there, without delay started back to Toulon.

It is difficult to say which is the more admirable, the promptness of decision of the illustrious seaman, or his uncommon tenacity in

WAR ON THE SEA.

carrying out his projects. He surely was a type of the great seaman, who perceived that a fleet is made to traverse the seas and not to rest in harbors.

A fortnight after his return from the Levant and his renewal of the blockade of the coast of Provence, the French fleet under Villeneuve's command again set sail and, this time favored by weather, escaped his watchfulness and stood for the Strait with a view to reach the West Indies.

Nelson, informed of this object within a few days, hesitates no more than on the previous occasion to launch himself in pursuit of a naval force which he has never failed to regard as a fit prey for him to capture and destroy. But, retarded in his voyage by incessant contrary winds and weather, he loses long days which the hostile squadron puts to good use. While he grieves over the good fortune which has deserted him, nothing disheartens him. "*The luck may turn,*" he writes; "*patience and perseverance can accomplish wonders.*" Informed, after reaching Gibraltar, of the route followed by Villeneuve, he also, without any hesitation, steers for the Antilles.

It is well worth while to observe that no instructions authorized him to leave the Mediterranean, which was under his care, nor even could his doing so have been thought of. And yet, in taking upon himself the whole responsibility for abandoning the field of operations which had been assigned to him, for the purpose of furiously chasing Villeneuve, Nelson gives us a wonderful example of that rigorous solution of the problems of war which attributes to the hostile naval force the chief rôle. Why did England maintain a squadron in the Mediterranean? Surely to destroy the power of the French fleet and to assure to herself the command of that sea. This fleet, though it had escaped from that sea, was still the only proper object of pursuit, and by destroying it, *even at the Antipodes*, the freedom of the Mediterranean and the supremacy of the English naval power were assured by the same blow. Guided by this powerful and faultless logic, Nelson made sail for the Antilles in obstinate pursuit of that fleet which he zealously called *his* fleet. This has generally been considered an arrogant expression, but for my part I am tempted to regard it as the very elegant formula in which he condensed his whole theory of war.

And this was so much his idea that, having learned, on his

arrival in the Antilles, the departure for Europe of that ever vanishing fleet, he also turned back to Cadiz and the Mediterranean, energetically resolved to prevent it from regaining superiority in that sea, and disquieting Sicily.

The events which then developed are known to all: his arrival at Cadiz, where no news of the French fleet had yet been received; the indecisive meeting of Villeneuve and Calder off Cape Finisterre; the French admiral's abandonment of Napoleon's magnificent plan of war, his retreat to Cadiz, and finally the disaster of Trafalgar.

To make us understand what Nelson's *tactical method* was under these circumstances, nothing could serve so well as knowledge of the great English admiral's real thoughts. By comparing results with his anticipations, we may judge the value of his proceedings. Nelson's military idea on this special point is set forth in full in two memoranda of great enough importance to merit reproduction.

In the first, a real plan of battle intended for the captains under his command, before the memorable chase after Villeneuve's fleet, Nelson thus expresses himself:

"The business of an English Commander-in-chief being first to bring an enemy's fleet to battle on the most advantageous terms to himself (I mean that of laying his ships close on board the enemy as expeditiously as possible), and secondly to continue them there, without separating, until the business is decided; I am sensible beyond this object it is not necessary that I should say a word, being fully assured that the admirals and captains of the fleet I have the honour to command will, knowing my precise object, that of a close and decisive battle, supply any deficiency in my not making signals; which may, if not extended beyond these objects, either be misunderstood, or, if waited for, very probably, from various causes, be impossible for the commander-in-chief to make. Therefore it will only be requisite for me to state, in as few words as possible, the various modes in which it may be necessary for me to obtain my object, on which depends not only the honour and glory of our country, but possibly its safety, and with it that of all Europe, from French tyranny and oppression.

"If the two fleets are both willing to fight, but little manœuvring is necessary; the less the better—a day is soon lost in that business. Therefore I will only suppose that the enemy's fleet

WAR ON THE SEA.

being to leeward, standing close upon a wind on the starboard tack, and that I am nearly ahead of them, standing on the larboard tack; of course I should weather them. The weather must be supposed to be moderate, for if it be a gale of wind, the manœuvring of both fleets is but of little avail, and probably no decisive action would take place with the whole fleet. Two modes present themselves. One to stand on just out of gunshot, until the van ship of my line would be about the centre ship of the enemy, then make the signal to wear together, then bear up, engage with all our force the six or five van-ships of the enemy, passing, certainly, if opportunity offered, through their line. This would prevent their bearing up, and the action, from the known bravery and conduct of the admirals and captains, would certainly be decisive; the (two or three) rear-ships of the enemy would act as they please, and our ships would give a good account of them should they persist in mixing with our ships. The other mode would be to stand under an easy but commanding sail, directly for their headmost ship, so as to prevent the enemy from knowing whether I should pass to leeward or windward of him. In that situation I would make the signal to engage the enemy to leeward, and to cut through their fleet about the sixth ship from the van, passing very close; they being on a wind and you going large, could cut their line when you please. The van-ships of the enemy would, by the time our rear came abreast of the van-ship, be severely cut up, and our van could not expect to escape damage. I would then have our rear-ship, and every ship in succession, wear, continue the action with either the van-ship or second ship, as it might appear most eligible from her crippled state; and this mode pursued, I see nothing to prevent the capture of the five or six ships of the enemy's van. The two or three ships of the enemy's rear must either bear up or wear, and in either case, although they would be in a better plight probably than our two van-ships (now the rear) yet they would be separated, and at a distance to leeward, so as to give our ships time to refit; and by that time, I believe, the battle would, from the judgment of the admiral and captains, be over with the rest of them. Signals from these moments are useless, when every man is disposed to do his duty. The great object is for us to support each other, and to keep close to the enemy, and to leeward of him.

“ If the enemy are running away, then the only signals necessary

WAR ON THE SEA.

will be, to engage the enemy as arriving up with them; and the other ships to pass on for the second, third, etc., giving, if possible, a close fire into the enemy in passing, taking care to give our ships engaged notice of your intention."

This first plan is a veritable discourse on tactics, for it would be difficult to express more fundamental ideas in fewer phrases. Everything is to be found there; in the way of theory, conviction of the necessity of forcing the enemy to fight, full and entire confidence in his subordinates, admirals and captains, based upon their complete understanding of the chief's plans, worthlessness of signals during battle, exposition of the principle of simplicity of methods in war. In what concerns execution, endeavor to crush a part of the enemy's line by the whole of one's own forces, and breaking up that line by passing through it; finally putting the finishing touch to victory by chasing the routed ships.

This enumeration would be incomplete, were it not added that Nelson declared, once more, that war cannot be made without running risks, nor battle engaged without expectation of injuries, and that he reminded all of the profit to be derived from a strict mutual dependence, all having a common aim. Having taken care to develop these sentiments in his subordinates, he could afford to announce that signals were useless. Not one of his principles has become obsolete; they are as eternal as the changeless truth.

The second plan of combat is better known than the first and has become famous under the name of Nelson's *Memorandum*; it is the one which was devised before Trafalgar; much may be learned from it:

"Thinking it almost impossible to bring a fleet of forty sail of the line into a line of battle in variable winds, thick weather, and other circumstances which must occur, without such a loss of time that the opportunity would probably be lost of bringing the enemy to battle in such a manner as to make the business decisive, I have therefore made up my mind to keep the fleet in that position of sailing (with the exception of the first and second in command) that the order of sailing is to be the order of battle, placing the fleet in two lines of sixteen ships each, with an advance squadron of eight of the fastest sailing two-decked ships, which will always make, if wanted, a line of twenty-four sail, on whichever line the commander-in-chief may direct.

WAR ON THE SEA.

"The second in command will, after my intentions are made known to him, have the entire direction of his line to make the attack upon the enemy, and to follow up the blow until they are captured or destroyed.

"If the enemy's fleet should be seen to windward in line of battle, and that the two lines and the advance squadron can fetch them, they will probably be so extended that their van could not succour their rear. I should therefore probably make the second in command's signal to lead through about their twelfth ship from their rear (or wherever he could fetch, if not able to get so far advanced); my line would lead through about their center, and the advance squadron to cut two or three or four ships ahead of their center, so as to ensure getting at their commander-in-chief, on whom every effort must be made to capture.

"The whole impression of the British fleet must be to overpower from two or three ships ahead of their commander-in-chief, supposed to be in the center, to the rear of their fleet. I will suppose twenty sail of the enemy's line to be untouched; it must be some time before they could perform a manœuver to bring their force compact to attack any part of the British fleet engaged, or to succour their own ships, which indeed would be impossible without mixing with the ships engaged. The enemy's fleet is supposed to consist of forty-six sail of the line, British fleet of forty. If either is less, only a proportionate number of enemy's ships are to be cut off; British to be one-fourth superior to the enemy cut off.

"Something must be left to chance; nothing is sure in a sea fight beyond all others. Shot will carry away the masts and yards of friends as well as foes, but I look with confidence to a victory before the van of the enemy could succour their rear, and then that the British fleet would most of them be ready to receive their twenty sail of the line or to pursue them should they endeavor to make off.

"If the van of the enemy tacks, the captured ships must run to leeward of the British fleet; if the enemy wears, the British must place themselves between the enemy and the captured and disabled British ships; and should the enemy close, I have no fears as to the result.

"The second in command will in all possible things direct the movements of his line by keeping them as compact as the nature of the circumstances will admit. Captains are to look to their

WAR ON THE SEA.

particular line as their rallying point. But, in case signals can neither be seen or perfectly understood, no captain can do very wrong if he places his ship alongside that of an enemy.

"Of the intended attack from to windward, the enemy in line of battle ready to receive an attack:

"The divisions of the British fleet will be brought nearly within gunshot of the enemy's center. The signal will most probably then be made for the lee line to bear up together, to set all their sails, even steering sails, in order to get as quickly as possible to the enemy's line, and to cut through, beginning from the twelfth ship from the enemy's rear. Some ships may not get through their exact place, but they will always be at hand to assist their friends, and if any are thrown round the rear of the enemy, they will effectually complete the business of twelve sail of the enemy.

"Should the enemy wear together, or bear up and sail large, still the twelve ships composing, in the first position, the enemy's rear, are to be the object of attack of the lee line, unless otherwise directed from the commander-in-chief, which is scarcely to be expected, as the entire management of the lee line, after the intentions of the commander-in-chief (are) signified, is intended to be left to the judgment of the admiral commanding that line.

"The remainder of the enemy's fleet, thirty-four sail, are to be left to the management of the commander-in-chief, who will endeavor to take care that the movements of the second in command are as little interrupted as is possible."

The worth of this document justifies its exceptional celebrity. The order of sailing will be the order of battle; it is with this admirable statement of principles that this incomparable seaman begins his instructions. It shows in the fewest possible words, that it would be the most dangerous of illusions to believe it practicable to perform on the very field of battle, face to face with the enemy, this or that complicated manœuver. From the moment that there appears any chance of an impending encounter, a naval force ought to take formation ready at any instant to open fire. In commenting on this exposition of principles, we cannot help thinking of the latest fact in universal naval history, of the battle of Tsushima, where the Russians were overwhelmed, principally because they were surprised in a cruising formation which bore no resemblance to a judicious battle formation.

In this memorandum two points of incontestable importance are

WAR ON THE SEA.

touched upon: the reunion of two forces of sufficient numbers to constitute a real fleet, necessitating division into several squadrons, and the composition of a reserve force on the battle field. Thus is set forth the problem of bringing into action great fleets.

The *memorandum* specifies, still more than the first plan, a tactics based upon the attack of a portion of the hostile fleet by the whole weight of the naval force. Thus it sets forth with remarkable clearness the principle of the superiority of forces, and of *relative* superiority, at one or several points of the field of battle. We already know the method, for it is that of Suffren. The manœuvre by which Nelson, wishing to cut the extended line of the French-Spanish fleet, exposed the bows of his ships to the fire of that long line, has been much and often criticized since Trafalgar, on the ground that this audacious manœuvre would have ended in disaster against an adversary as well trained as the English fleet, provided with as good crews, above all with as good gunners as they.

The argument has no weight: there cannot, in fact, be any rigid and absolute rule in war; everything is there, on the contrary, a question of degree. Knowledge of the moral qualities of the adversary is one of the most essential factors of war; it is necessary to the commander-in-chief all the time and under all circumstances. And it is precisely because Nelson knew thoroughly the moral and material situation of HIS fleet, the demoralization of its crews, the precarious condition of the armament of its ships, the undoubted inefficiency of its gunners, the deplorable gunnery methods used on the French ships, and finally and above all the timid and undecided spirit of Villeneuve; it is because of all that, I say, that he could and should have permitted himself the audacious manœuvre under discussion.

It may well be that in the sight of I know not what academy of war, learnedly laying down the law on paper, he was wrong; on the field of action, and under the conditions, he was fully right, and the facts have overabundantly demonstrated it.

The *memorandum* further accentuates the principles of mutual confidence and self trust in battle, without which there could not be any decisive action; that which he accorded to his second in command, Collingwood, honors the latter as much as the chief himself. It was the very sign of Nelson's sagacity; a commander-in-chief cannot have confidence in his subordinates when he has

WAR ON THE SEA.

not confidence in himself. Another truth of all times and of all countries. There is the same conviction of the uselessness of signals, once the action has begun. If a captain is under fire, he is at his station! This is worth remembering and meditating upon.

Finally the most admirable thing about the famous *memorandum* is the precision of the ideas developed in it and the care which Nelson takes to make his captains understand his thoughts, the whole idea of their chief, in order that they may themselves bring to the battle one and the same conception, and supply what is needed in the solution of unforeseen cases, inseparable from every battle, in the absence of new detailed orders, of signals, and of what may be termed intuition.

That the principles of the *memorandum* were faithfully and wholly carried out is a matter of quite secondary importance; its author might die and disappear at the very beginning of the battle: he had breathed into the minds and into the very souls of his captains the principles and elements of victory; thenceforth victory was assured, and, despite his untimely exit from the battle field, it was Nelson who won the battle of Trafalgar, not Collingwood.

These conclusions acquire new force when we compare with these wise, concise and logical previsions the indecision and real demoralization of Villeneuve. Even when he set out from Cadiz, he was marked for defeat.

And now we understand and share in Admiral Bouët-Villamez's appreciation: "*One does not know which to admire most in Nelson's memorandum: the spirit of foresight or the clearness of exposition of the plan, which covers all general cases without going beyond the limits of a quite military conciseness. Only at this cost are great successes won. How few know anything of the necessary preliminaries, and how many disasters are due to the ignorant or lazy spirit of leaders who do not think themselves called upon to play their real parts till the very day of a battle!*"

CHAPTER III.

THE AMERICAN CIVIL WAR. THE ITALIAN WAR (LISSA). CHILE
AND PERU. ADMIRAL COURBET'S CHINA CAMPAIGN.
CHINA AND JAPAN.

THE AMERICAN CIVIL WAR.

In taking up the study of the American War of Secession, we begin a series having a new and considerable interest due to the fact that they will show us, for the first time, modern war material in use, steamships, armor-clads, etc., even submarines. For this reason alone, it deserves our careful attention, though we shall not be able to derive as many profitable lessons from it as from the great naval wars between France and England in the early part of the century and in the preceding century. In this conflict between parts of a single nation, those encounters of large forces, engagements of great fleets, which in the past have been not only the object but the principal method of great naval wars, are not to be expected.

Accordingly I shall give only a very brief résumé of this famous civil war. And I do this only because, despite its narrow scope, it affords material for interesting observations. One primary strategical principle dominates, in effect, the whole conduct of the war, and it may be said that the Federals' final success was entirely due to its faithful and stubborn execution. It is true that the very conditions of the opposing sides imposed this principle upon them, yet we must recognize that the one which had assumed the burden of maintaining the union knew how to profit from it. We have too often seen, we shall too often again see, the necessity of a general strategical plan in the conduct of a war, not to note in passing an evidence of good judgment on the part of a government.

The struggle was not one between two mere factions, differing apparently over the best solution of a social problem, like that of the maintenance or the suppression of slavery, but really over the question of political supremacy; it was, above all, a struggle between two peoples diametrically opposed in ideas, customs and modes of life.

WAR ON THE SEA.

While the Union States were more particularly industrial, those of the South were almost wholly agricultural. From this essential difference dissimilar interests were bound to result, and for that very reason quite different resources for making and sustaining a war.

If the Federals had many manufacturing establishments, a great industrial population, permitting them to construct rapidly war material, armaments, equipment, ships, etc., the Confederates on the other hand had little or no mineral wealth and available labor. The latter's wealth, principally based on the exportation of cotton to Europe, could only give them the means of compensating for their original inferiority by the purchase, from abroad, of war material. But this necessitated the introduction of this material *by way of the sea*.

It was precisely the intuition of this real weakness which gave rise in their adversaries to the idea of the strategic plan of which I have spoken, and the realization of which by itself alone assured the success of the Federalist cause.

To prevent the Confederates from supplying themselves with material and arms, the most certain method must be a strict blockade of the southern coast. By this means two advantages were to be gained: first, the suppression of cotton exports, and consequently the drying up of the most important source of revenue of the Southerners; second, as an immediate consequence, the impossibility of their supplying themselves with arms for continuing the war. And such actually was the result of the blockade; for if, after several years of desperate and glorious resistance, the Southerners laid down their arms, it was because, lacking everything, a prey to the most frightful destitution and completely isolated, further resistance had become impossible.

To understand how very closely the success of the Confederate cause was connected with freedom of the sea, we need only recall that at the beginning of the war the seceding states lacked cannon, small arms and munitions of war to such an extent that churches of all denominations, as well as individuals, gave their bells to be used in making them.

Under these conditions, they had to take what they could get as contraband of war from foreign countries, and as a result, at the end of the war, nearly forty different models of small arms were to be found in their equipment.

WAR ON THE SEA.

Blockade alone could stop this nourishment of the forces of resistance, and from the beginning the Federal government resolved upon the establishment of this blockade.

Beyond doubt it was not very strict at first; the navy, although almost wholly adhering to the Federal side, was not sufficiently numerous to exercise an effective guard at all points of a coast of great extent; a guard which was rendered very difficult by bad weather, fogs, etc. Thus the exploits of the blockade runners—a veritable industry and almost wholly English—which, laden with war materials, entered the Southern ports, and left them again laden with cotton, have become justly celebrated.

But little by little the Federal government, realizing the full importance of naval effort, increases its naval strength. Its fleet, which comprised less than a hundred ships at the beginning of hostilities, was of more than four hundred in the middle and nearly seven hundred ships at the end of the war. The progressive increase of the number of ships emphasizes the importance of the strategic plan as well as its continuous development. And this incessant growth equally marks the tightening of the grip which closes each day more on the revolt of the Southern states, until it ends by strangling it.

These special circumstances dictate to each of the two belligerents alike a particular system of war.

The Federal navy, having on its side the uncontested mastery, the superiority of numbers and of force, will naturally take the offensive, carrying, according to a well known phrase, its own frontiers to the enemy's coasts. The operations which it will undertake, all arising from this single general principle, will not have the sole object of neutralizing the riches of the South by a more and more strict blockade; they will also have the result of taking from the South, one by one, its forces of resistance, and finally of killing that resistance itself by penetrating to the very heart of the country, by the Mississippi.

For the Confederate States, on the other hand, who dispose only of precarious means, who have no navy, or so little of one, and are not able to improvise one (for a navy cannot be improvised), a single way is open, that of the defensive. And then, under the impulse of imperious necessity, there appear, in the theater of war, new engines, as yet scarcely roughed outlined, but for which brilliant future destinies are reserved: torpedoes and submarines.

WAR ON THE SEA.

Yet this is not all, an unarmed country, surprised by war, without having foreseen all its consequences, without having prepared its forces for that war, is driven to the necessity of seeking help from all means, from every expedient. Thus will arise the thought of attacking the maritime commerce of the Northern States, since nothing can be done against their war ships, and the cruiser Alabama will become the most justly celebrated of commerce destroyers.

But all this will serve only to prolong the resistance of the side condemned in advance to defeat because it did not have that command of the sea which was the sole source from which its life could be sustained. All the ingenuity displayed in the invention and use of mines, the marvelous bravery of the Confederate sailors in their attempts with submarines, the activity used in attacking maritime commerce, all these were of necessity unavailing.

It could not be otherwise; for, even putting aside historical examples, which have always condemned the defensive method with a persistence not to be attributed solely to chance, simple reflection indicates that a system of war based on the attack of one or several of the enemy's partial forces, without menace to the totality of those forces and notably the principal one of them, could not give decisive results.

In spite of all Robert Lee's genius, and Jefferson Davis' political skill and activity, the South of necessity was to succumb, for lack of a powerful navy.

No other war could furnish Captain Mahan a more valuable and suggestive contribution to his fine book *The Influence of Sea Power upon History*.

Such, outlined in brief, is the character of this war of secession. From our special point of view, this broad outline will be sufficient, for it includes all that can interest us so far as the general principles of war are concerned. In effect, it contains all: the irresistible action of fleets; the superior value of the offensive; the insufficiency of the pure defensive and commerce destroying, *employed by themselves alone*, to reduce the antagonistic forces and thus fulfil the object of war.

If, therefore, we study some of the details of this war, which might appear needless, it is because they furnish more than one opportunity for profitable observations.

The action of the Federals was favored not alone by the adop-

tion of a logical and fertile strategical idea ; it also benefited by the energy and special ability of men like Farragut and Porter, to name only the most famous, who had to carry it into execution. Their methodical operations against the shore defences all had for objective not only the weakening of centers of resistance by the overthrow of forts or batteries, but also the acquiring of safe harbors and bases for the Federal fleet, to facilitate the maintenance of a more and more strict blockade by the shelter they would afford to the blockading vessels against the frequent storms of that coast. So too they served on many occasions to assure the landing, at fixed points, of the Federal armies intended for offensive turning movements against the Confederate troops.

From this long succession of operations, I shall recall only certain facts relating directly to the object of my book, and, at the very first an event not at all important in its immediate consequences but having a great after effect upon naval ideas and upon the path of development of naval tactics till the end of the 19th century. I refer to the battle of Hampton Roads, where on each side appeared, for the first time, in action, the armor-clad, whether improvised on the part of the Confederates by building upon the hull of a frigate burned by the Federals, the *Merrimac*, a casemate armored with railway iron, or constructed in all its parts by Ericsson, with armor of thick plating, like the Union *Monitor*, the consequence was the same. This simultaneous appearance brought to view, for the first time, two ships provided with armor impenetrable by the projectiles of the period, and that is why the fight at Hampton Roads marks an epoch in naval history. On that date not only there appeared a new fighting unity, but also there was restored to use a new weapon, or, more exactly, an ancient method of single combat, as old as the invention of galleys. I allude to the use of the ram, by which the *Merrimac* sank two Federal frigates before the arrival of the *Monitor*. The two adversaries tried to use it on the following day, but without success.

This resurrection of a method of fighting which could well be supposed forever abandoned, powerfully supported some years later by the similar occurrence of a war which we shall have occasion to study further on, has exercised a considerable influence upon naval minds, and, in our time still, few officers escape its influence. The undeniable trace of this influence may be found in

WAR ON THE SEA.

naval constructions, for the most modern and most perfected fighting ships in all navies are still equipped with rams.

Later on we shall have to discuss thoroughly the question of the efficiency of this weapon; let us now limit ourselves to the statement that the artillery of the combatants was composed of smooth bores, and that the two rams were not equipped with weapons of long range, capable of preventing a close engagement.

A second event, big with consequences, the whole importance of which nevertheless was only appreciated twenty-five years later, took place February 17, 1864, before Charleston. The Federal corvette *Housatonic* was at anchor off the city when, at night fall, an object like a plank gliding over the water was suddenly perceived. A few minutes later the object was alongside, and before the ship could escape by veering chain and backing her engines, there was an explosion, sinking the Federal vessel. The *Housatonic* had been attacked by a submarine, the *David*, commanded by Lieutenant Dixon, who in triumphing buried himself and his crew.

This pioneer is well worth naming; for if the naval art has had to wait a quarter century to realize all the profit of an invention destined to once more modify tactics, none the less this example shows the brilliant result which could already be obtained with an instrument of war incomplete, and even in the rudimentary state.

Of a submarine, the *David* really had but the name and the possibilities, for the accidents of previous trials show that the problem of stable underwater navigation had not been solved by it; the day of its attack on the *Housatonic*, it navigated on the surface. The principle alone, however, is of consequence; and to tell the whole story, the *David*, as a submarine, was much in accord with the degree of perfection of all the other engines of war of the period.

That deadly strife between hostile brothers, the war of secession, brought forth not the submarine alone; it gave birth also to an engine formidable in its effects, of uncertain action to be sure, but so much the more redoubtable as all its hits gave mortal wounds. I speak of the torpedo, of which so great a use was to be made in later wars, notably in that which we have just seen taking place in the Far East.

The successes to be ascribed to the agency of the torpedo in the war of secession are many and various. Counting ground mines

WAR ON THE SEA.

anchored in channels and floating mines, no less than eighteen vessels of war, monitors or gunboats, were destroyed by it during the war. The best known of these exploits is the destruction of the *Tecumseh*, an armored monitor sunk in a few moments in the attacks on Mobile.

To this brilliant showing must be added the victims of the torpedo borne by steam launches right up against the sides of hostile ships, a bold plan which proved that anything can be expected from resolute men who are inspired by a high ideal.

Besides the *Housatonic*; the armor-clad *New Ironsides*, the frigate *Minnesota* and finally, the most noted, the armor-clad *Albatross* in the Roanoke river, were thus sunk.

It will be recognized that more numerous and more complete successes could hardly be expected, and the weapon by which they were accomplished certainly yields to no other in power. And it is all the more instructive to note that these results, remarkable as they were in their essential value, did not in the least alter the logical conclusion of the war. They could grievously wound the adversary, but, having no effect upon his principal force, they could have no serious effect upon his destiny.

The same thing was true of the attempts against the enemy's commerce. If I pause for a moment to consider this question, it is because the war of secession has most often been used as an example by stubborn advocates of commerce destroying, as a *sole method of war*, to defend their opinion. In the example before us, the expression "commerce destroying" is moreover unsuitable. "Commercial war" would be a more exact expression, for the pursuit of merchant ships was carried on by regular or auxiliary war vessels which had nothing in common with the privateers of former times, like *Surcouf*, for example.

We must not forget that the Federal commercial marine of that time consisted almost entirely of sailing vessels, which very greatly simplified the task of the commerce destroyers; finally and above all that the cruisers found in all countries, on every coast, facilities of every sort for replenishing their supplies, which it would be impossible to obtain to-day. Besides which there is the quite modern question, so delicate and complex, of neutrality, which, in the famous voyagings of the *Alabama*, forty years ago, did not excite any of the suspicious susceptibilities so prompt to be aroused in our time.

WAR ON THE SEA.

Without this, how could Captain Semmes have cruised in the *Alabama* for nearly two years undisturbed in the Atlantic and the Indian Ocean before yielding to the blows of the *Kearsarge* off Cherbourg. And the prolongation of this period of immunity was due to the Federal naval vessels being fully occupied in maintaining the blockade of the southern coast.

This time again, exceptionally favorable circumstances permitted a particular system of war to develop its action; nevertheless it did not cause the march of events to deviate in the least. Like the torpedoes, and, in a general way, all engines of the defence, it served to defeat only one of the partial forces of the enemy; powerless, as I continue to repeat, against the totality of those partial forces, and especially against the principal force represented by the Federal fleet, its action was bound to be negligible.

It is for this great lesson, much more than for its comparatively unimportant facts, that this war is of value to us.

THE ITALIAN WAR (LISSA).

The conflict of 1866 between Austria and Italy has exercised no little influence upon the naval history of the latter part of the 19th century, and, even to this day, upon opinions regarding the conduct of naval war, battle tactics and the preparation of naval material. The memories of the battle of Lissa are still so alive that their effect upon very recent exercises of our squadrons can easily be seen. For this reason alone it would not do at all to pass it by without mention.

At the beginning of this war the belligerents appeared in very unlike conditions. The superiority in material, ships and guns, as well as in numbers, undoubtedly belonged to Italy, which had spared no sacrifice to prepare a strong navy; but she too, like so many others, had forgotten that strength resides not in excellence of weapons alone but also in the training and quality of the personnel called upon to use them; in short that military power is not made wholly of physical force, but equally includes a moral force; perhaps the more important of the two, since it alone can overcome the inertia of the first and inspire it.

And it is quite thus that Tegethoff, the Austrian admiral, understood the matter when he pronounced those famous words: "*If you have no cannon, still give me ships, I will do the best I can*"

with them." Like all good workmen, he would not blame his tools.

Circumstances still greatly favored the Italian fleet. Its chief, Admiral Persano, had had the rare, and so much the more valuable, good fortune to receive from his government clear and precise instructions, based upon a faultless strategical plan. On June 9, that is to say more than ten days before the opening of hostilities, the admiral already knew the firm intentions of the central power, which could be resumed in the brief formula: "*Prepare to chase the enemy from the Adriatic, to blockade him, or to attack him, wherever you may find him.*"

The search for the enemy afloat and his destruction were beyond any doubt the principal ends to be attained, in order to insure conquest of the command of the sea; they must in any case have so seemed to the Italian government, which believed that it could surely count upon a superiority of forces.

We are obliged to suppose that this simple conception of war was completely strange to Persano, for a month later he was still asking explanations from his Minister. The latter gave them to him with a precision which left no room for equivocation: "*The principal objective, before anything else, must be to become master of the Adriatic by clearing that sea of the Austrian Squadron.*"

It would be difficult to explain how so clear and logical a program could have led to such a grievous strategical error as Lissa, were it not that history has taught a hundred times already how much the instinctive, unreasonable fear of action has been and still is ineradicable in the minds of some leaders. Finally, after multiple delays, caused very much more by the waverings of his mind than by his alleged desire for a better preparation of his ships, Persano, having obtained authority to do so, resolved to make a tentative attack on the island of Lissa.

At noon of July 16 the Italian squadron, composed of twelve armored ships of a total displacement of forty-six thousand tons and of twenty-three wooden ships, frigates, dispatch vessels or transports, of twenty-eight thousand tons displacement altogether, set sail from Ancona for its destination, where, after delays and hesitations of all sorts, it only got into position to attack the shore batteries forty-eight hours after its setting out.

To undertake operations against fortified works on shore, while freedom of the sea was not assured, was in itself a grave error,

WAR ON THE SEA.

since the inopportune arrival of the hostile squadron in the midst of the enterprise was always to be feared, and since a dangerous position was thus voluntarily occupied; but, if undertaken, they should have been carried on with the greatest vigor, in order to reduce to a minimum the adverse chances.

And this puts us strongly in mind of a similar operation, Suffren's attack on Trincomalee, with which a comparison is timely.

No more than Persano, did our most famous seaman have command of the sea when he made his bold attempt against Trincomalee; but at least he had already made his adversary, the English Admiral Hughes, feel the whole strength of his aggressive ardor; he knew moreover that his enemy was temporarily held up at Madras, and he recognized the whole value of activity. We have already seen how he took Trincomalee before Hughes could return to his attack.

Persano, for his part, had no idea of the prime importance of time, of the influence of rapidity of execution upon the attainment of success; in a word, of speed.

Thus, when on July 20, four days after his departure from Ancona, he saw the Austrian squadron appear, not one of his attempts against the batteries of the island had been crowned with success. Furthermore, this event found his forces in the most complete disorder; for, hoping more certainly to reduce the shore defences, he had thought it necessary to divide his forces into three portions, respectively opposed to three different points of the island.

And yet, four long days having gone by, how could he have hoped that the Austrian squadron would not have learned of his venture against Lissa?

Thus it was in the enemy's presence that the Italian squadron had to concentrate again, rallying to the commander-in-chief's flag, and it is perfectly self evident that such conditions could not but be eminently unfavorable. And they were the more so because that enemy, himself having a clear conception of affairs of war as well as a profound sense of the simplicity of its methods, had adopted for cruising the *order of battle*.

Tegethoff, then on reaching the field of battle, had behind him a naval force every element of which had but one thought in mind; to fight.

Quite different was the thought of the Italian commanders, or

WAR ON THE SEA.

at least it was more complex, for to anxiety concerning the approaching engagement was added that of the necessity of reforming as quickly as possible.

In fact, the reunion could not be completed ; at the moment when the battle opened, only nine Italian armor-clads, stretched out in a column over six miles long, were able to confront the whole Austrian squadron formed in close order. The precipitancy with which, owing to the surprise, the Italians had taken formation, had furthermore the result of offering to the immediate attack of the mass of Tegethoff's squadron a partially isolated head of column.

The breaking up of the Italian line could not help resulting, and that is what actually happened.

The most interesting lesson, in my opinion, to be derived from the battle of Lissa is the exact meaning which should be given to the term superiority of forces. Like Nelson at Trafalgar, Tegethoff was inferior in numbers. To the forty-six thousand tons of armored ships and the twenty-eight thousand tons of wooden ships of the Italian squadron, armed with a total of five hundred and ninety-six guns, he could only oppose twenty-seven thousand tons of armored ships and twenty thousand tons of wooden ships, mounting altogether five hundred and thirteen guns.

And yet, as much by his boldness as by his skill in profiting by the faults of his adversary, he managed to turn the scales in his own favor by obtaining superiority of forces *at one point* of the battle field.

The essence of the battle of Lissa, in my opinion, is contained in these simple considerations. It has been customary, on the contrary, to indulge in endless dissertations attributing all its success to the formation of the Austrian squadron in double echelon ; there has even been imagined in this double echelon a sort of spur, ram or wedge, with which Admiral Tegethoff broke up the Italian squadron. That is but imagery ; the reality was otherwise.

Under any circumstances such a conception would give to geometry, in matters of war, a part which certainly does not belong to it ; but in the case of Lissa it would have been necessary, to justify its utility, for a real engagement between two squadrons manœuvring on the field in different formations to have taken place. These manœuvres alone would have permitted a judgment of the respective values of the different formations. But after the first encounter, the action degenerated at once into a veritable mêlée,

a succession of partial combats wholly beyond the control of the commander-in-chief.

It is not to *his wedge* that Tegethoff owed his victory; but to the concentration of all his ships upon the almost isolated head of the Italian column.

We may believe, on the other hand, that if opposed, for example, to a compact, supple, thoroughly manageable column, under the direction of a resolute chief, the Austrian squadron would perhaps have regretted having adopted a too rigid and too little manageable formation. Like Nelson at Trafalgar, Tegethoff at Lissa profited greatly by the timid weakness of his adversaries.

We must recognize, however, that his boldness was justified by the certain knowledge which he had of their weaknesses.

This observation strengthens the impression, which we have already received from the study of history, that it would be vain to seek for the formula of some one formation applicable to all cases and sure to give victory.

The best movements to make on the field of battle necessarily depend upon those of the enemy, upon his activity, his initiative, his *morale*. Such a manœuvre, dangerous against a resolute opponent, will be perfectly proper and will make complete success easy against another who is demoralized. In tactics, as in strategy, outside of general principles, there are only concrete cases, and since I am recalling the great English seaman, it is always useful to remember that he surely never thought of describing, on the surface of the sea, more or less ingenious geometric figures, when he led his two squadrons *in wedge formation* against the center of Villeneuve's fleet. He merely applied the elementary principle of the power of mass upon a point of feeble resistance.

I have said that the battle at once took on the character of a *mêlée*; it is in this series of individual combats that the events occurred the persistent repetition of which has given to the battle of Lissa a traditional aspect, and which have had such great influence on naval ideas up to our own time. In the eyes of too many people still, Lissa represents only, in effect, battle by ramming and the triumph of the spur.

The wreck of the *Re d'Italia*, struck broadside on by the *Ferdinand-Max* and sinking in two minutes, was the salient feature of the battle, and there is no doubt that we must admit that this picture is very striking in order to explain the considerable influence

WAR ON THE SEA.

of an incident which has never been repeated and the impression of which still lasts after forty years, despite altogether radical changes in naval material.

I shall limit myself to the remark that when Lissa took place, rifled artillery was still in its infancy, and that on the Austrian as well as on the Italian ships smooth bores were in the majority. The adversaries, then, like those of the war of secession, had no long range weapons at their disposal, sufficiently efficient at great distances to prohibit close action.

Tegethoff's merit was precisely that he understood that the relative impotency of the artillery, *at that time*, permitted taking all the risks of closing. His signal "*to rush upon the enemy and sink him*" was then fully justified.

And he discounted, for the success of his attack, not only the insufficiency of the guns of his time, but also the incapacity of the Italian gunners, and their lack of training, so true is it that at every stage of history the all powerful influence of preparation for war makes itself felt.

From the insignificant part played by the gun in the battle of Lissa, so insignificant that, aside from the burning of the *Palestro*, caused by an Austrian shell, gun fire did only very slight damage on either side, the attempt has been made to draw far too broad conclusions and to assign to that weapon, in the future, a secondary rôle. This is to forget that an exception only confirms the rule, which from the very beginning of disputes and battles, has been characterized by a progressive evolution tending to the production of weapons of longer and longer range. Fortunately we shall find a striking demonstration of this in the study of the actual events of more recent wars.

To finish with this engagement of Lissa (I purposely use the word of restricted meaning rather than the word battle, for the character of a great battle is not to be found there), I have only to observe that if Tegethoff revealed in his energetic attack the real qualities of a great chief, he was not completely a great chief. His victory was really only a half victory; to make it decisive, it would have been necessary for him to pursue the scattered units of the Italian fleet, to track them without truce or mercy, to take advantage of their disorder and the certain demoralization of their personnel to destroy them.

In leaving the field of battle without following the logical

WAR ON THE SEA.

sequence of his first success, Tegethoff, whatever his worth, proved that he was not of the same metal as Nelson.

It is only fair to state that, in attacking, Tegethoff disregarded the formal directions of his government, whose constant care was to be sparing of its forces. But since, to his great honor, the Austrian admiral had had the courage to assume that responsibility, once the victory was in his grasp he should have gone on to the very end.

THE WAR BETWEEN CHILE AND PERU.

Although I have included in my work a study of the war between Chile and Peru, it is not because of any expectation of finding there encounters of great naval forces such as must be expected in any modern war between powerful maritime nations. But this naval campaign, although in a restricted field, affords us a chance of an excellent lesson in strategy, and also furnishes a new contribution to the demonstration of the utility of a navy.

The respective geographic situations of the two countries, separated by a zone almost uninhabited and arid, and very hilly, insured an important rôle to their naval forces, because it was necessary for troops to avoid crossing this desert by taking the sea route around it.

At the opening of hostilities, the naval forces of the belligerents were very nearly equal. Peru had two armored ships, the *Huascar* and *Independencia*, two monitors and two wooden ships; Chile could oppose to these two armored ships, the *Blanco-Encalada* and *Cochrane*, four wooden corvettes and two gunboats. As may be seen, the two naval forces were quite comparable, although of slightly different composition.

With a clearness of decision which does honor to her judgment and was to procure for her an immediate naval advantage, Chile without delay assumed the offensive by blockading the port of Iquique. But, in speaking of this as advantageous, I do not mean that I can give unreserved praise to the manner of its execution, for the Chilean navy could not hope to maintain an effective blockade with two small gunboats like the *Esmeralda* and *Covadonga*. But the mere fact of vigorously planning an attack showed her energetic resolution, and by intimidating the adversary, should have taken from him a portion of his resources.

The two Peruvian armor-clads, *Huascar* and *Independencia*,

WAR ON THE SEA.

attacking the two gunboats, to break up the appearance of a blockade, sank the first by ramming her ; but, pursuing the second into shallow water, the *Independencia* struck a rock and sank.

We may attribute, in a philosophical sense, some small part in causing this important event to the offensive action of the little Chilean gunboats, taken to disconcert the Peruvian sailors and diminish their needful coolness.

However that may be, the loss of the *Independencia*, by destroying the balance of naval force in favor of Chile, turned the tide of events and pointed to an end of the conflict which nothing but a reconstitution of the Peruvian fleet could possibly prevent.

And this was indeed really the decisive act of the war. Chile thenceforth possesses superiority of forces on the sea, and her opponent will never take it back from her. The *Huascar*, under Admiral Grau's excellent direction, may multiply her movements, may appear and disappear here, there and everywhere, bombard the shore batteries, capture prizes, sow terror along the whole coast, and display unexampled activity in interfering with and discouraging the military operations of the Chileans, who will not dare to embark their troops so long as she so resolutely keeps the sea. All that is true, and without exception remarkable, but it is all useless. The *Huascar* is marked by destiny, her days are counted and her end is fixed. With equal preparation on both sides, and above all equal morale, she must succumb to the superiority of material force, and as battle cannot be indefinitely escaped or refused, the day will come when, forced to fight, she will finally perish.

The combat of Punta-Agamos remains justly famous, because a drama, to satisfy the public mind, must have decorations, scenery, above all be touching ; the heroic resistance of the little *Huascar* to the furious attacks of the *Cochrane* and *Blanco-Encalada*, responds wonderfully to these aspirations. But for us, who have to weigh matters with more calm deliberation, the essential fact, the *determining cause*, will always be the initial weakening of the Peruvian naval forces.

The capture of the *Huascar* by Chile definitely ratified the conquest, already virtually won by that nation, of command of the sea. Thenceforth she could freely transport her troops to the Peruvian coast, blockade its ports, and as a last resort force upon Peru an agreement. The final victory was truly the navy's doing.

WAR ON THE SEA.

This war in the Pacific not only gives a lesson in strategy, but it also affords opportunity for valuable tactical observations.

The battle of Punta-Agamòs is really, in the chronology of naval battles of modern times, a turning point of history; it inaugurated the reappearance, on a brilliant stage, of a too long neglected weapon, and one which will resume, after a half century's unjustifiable obscurity, a place which will not cease to grow in importance till it has become the very first: I speak of the gun. And it is truly by the gun, and by the gun alone, that the *Huascar* was defeated and at last compelled to lower her flag.

That is not all. This fight marks yet another memorable date, for it gave a wholly experimental proof of the fact that an armored ship had other weak points than those that were sheltered by an armor thought invulnerable; and that, through them, her source of life could be reached.

When the *Huascar*, *unable to longer resist*, surrendered, the command had descended to the seventh officer in order of rank, the six seniors having been killed in succession; a third of her crew were dead or wounded, and there remained on her not a single gun capable of being fired. But this ship, become an inert wreck by reason of the destruction of her personnel, was so little damaged in her essential parts that, hardly a few weeks after the battle, she was cruising again under the Chilean flag.

Already new times could be foreseen in which, the gun having rightly again become the incontestible arbiter of naval battles, it would be judged much more reasonable to seek to attack a vessel at all points than only in a zone of too limited extent not to make the chances of striking it very uncertain.

From all that precedes there arises, as may be seen, the clear impression that the lessons of history are not measured by the stature of its events, and that in such a small theater as that of the war between Chile and Peru, the harvest may be valuable and abundant.

ADMIRAL COURBET'S CAMPAIGN.

For the reason just given it will be interesting to examine the broad outlines of Admiral Courbet's Chinese campaign. Here again we shall find no great military doings. China, properly speaking, had no navy, or at least what constituted the germ of one could not stand against the naval forces disposed of by France.

WAR ON THE SEA.

Therefore we are not going to seek examples of encounters of squadrons or large groups in this campaign; but every military action, small or great, is the enforced consequence of a controlling thought, of a general plan aiming at a determined object; it necessarily derives from either good strategy or bad strategy; and that is exactly why the analysis of every war campaign, no matter how narrow its limits, contains a lesson.

Moreover this affair is one in which our own country was engaged, and that reason alone should suffice to attract our attention to it. The attentive examination of past errors should help us to avoid making errors in the future.

Nobody any longer seriously denies that a great many errors were committed in this Chinese campaign; and here let me make my position clear. Confining ourselves exclusively to the study of war, for that very reason we owe it to ourselves to bring to that study absolute sincerity and frankness; the errors made in the conduct of the war are all that concern us, but we must not conceal any of them.

It suffices to run through the official correspondence between the government and Admiral Courbet for these errors to become apparent, almost from the first telegram.

The most important of all of them, beyond any doubt, is the absence of a supreme controlling idea—of a coldly matured plan of operations—which is revealed by the collection of dispatches. In this respect, they evidently live, in governmental circles, from day to day, under the unstable impressions of events, without well knowing what they wish, or whither they are tending. And, as is inevitable in such cases, the commander-in-chief is closely held in leading strings, by which the wonderful privileges of action are paralyzed.

After the ambush of Bac-lieu, Admiral Courbet had received orders to set out for the north of China and to hold himself in readiness to seize *guarantees*, if that power refused to accord legitimate compensation. I have purposely used the very word which served to make known by telegraph the governmental idea; for the insistence with which it was repeated, in the subsequent official correspondence, indicates that it was the cherished hope of the French cabinet to lead China to an agreement by the seizure of territory belonging to her.

I do not condemn the principle itself of taking guarantees.

WAR ON THE SEA.

This procedure should necessarily be counted one of the many ways that can be employed to injure the forces of an enemy, and doubtless it is an attack upon them, especially upon their morale, to take possession of one or more portions of the national domain.

Yet it is indispensable to make a good choice of these guarantees, and such was not the case, certainly, when the French government designated to Admiral Courbet the island of Formosa as that whose seizure would intimidate China. That was ill to comprehend the special characteristics of the vastest empire of the world, so vast that its nationality is a pure abstraction and that North Chinamen and South Chinamen, not speaking the same language, have lived to this day in the most complete reciprocal indifference.

Formosa was already very far removed from the center of Chinese life for it to be hoped that its conquest would greatly affect a public opinion which, moreover, was completely misled by a controlling bureaucracy interested in concealing from it the truth by representing defeats to be brilliant victories.

Moreover, the island had too large a population to think of trying to conquer it by the insufficient means of landing parties from the French squadron. Finally, from the seaman's point of view exclusively, the choice of Formosa was a detestable one, since that island was destitute of safe and sheltered harbors. This is plainly seen when, after having given up the occupation of Kee-lung on account of insufficient troops, it was wished to maintain a blockade of that port. At the same time with this difficult and useless operation, the admiral was ordered to blockade Fu-chow.

The second error; scattering of efforts, so contrary to all the principles of war, which demanded, on the contrary, their concentration, with a view of obtaining the superiority of forces.

To conquer nations, as with individuals, the heart must be struck at. It was at the very center of the Chinese power, then, that blows should have been directed. Admiral Courbet would not have been the great chief who has left with us an imperishable memory, if he had not felt these essential truths. Accordingly he proposed to the government, only a few days after the opening of his campaign, to take the proposed guarantees in the Gulf of Petchili, and he indicated Port Arthur and Wei-hai-Wei as the two most favorable places. The mention of these two names is peculiarly suggestive in view of the future events which on two

different occasions took place on those shores. This common sense strategic plan the French government could not comprehend; it maintained its first project of purposeless blockade of the coast of Formosa.

On August 22, 1884, China having refused all satisfaction, an active move was decided upon, and on the following day, Admiral Courbet, momentarily free from restraint, accomplished his fine feat of arms in the river Min and destroyed the arsenal of Fu-chow.

But this tentative activity was only to be for the occasion, since the government's instructions, immediately afterwards, turned again and more obstinately than ever the valiant admiral's efforts towards the useless Formosa undertaking.

Acting under the dictation of his honor and his responsibility as military chief, the admiral could not but reopen the subject with his government, to explain the weakness of the operations, without any possible result, which were forced upon him, and at the same time to propose those which the true theories of war indicated.

On September 4 he set forth in a telegram to the Minister of Marine the difficulties of the capture and retention of Kee-lung and Formosa with the resources at his disposal, and the disproportion between the necessary effort and the profit to be drawn from a venture against an island too far away, as Fu-chow was, from Peking, to influence the Chinese government in the desired manner. And he added: "*It would be better to begin operations at once in the north; we would take Che-foo as our base, and establish there the troops which would enable us to occupy Wei-hai-Wei and Port Arthur.*" Some days later he reverted to the subject: "*My plans are: to start for Che-foo with the forces available, to take the islands at Che-foo as a center of operations and supplies, from Che-foo to fall upon the Chinese naval forces, to attack Wei-hai-Wei and Port Arthur by sea; to occupy them with the available troops, if possible; if not possible, to establish ourselves on the best points of the Miao-Tau islands to blockade Port Arthur and the Gulf of Petchili.*"

To fall upon the Chinese naval forces! We find in these words from Admiral Courbet's pen the application of a doctrine which we have already more than once met with, and which begins to appear to us as the foundation stone of the theory of war. Its

WAR ON THE SEA.

execution would have made necessary the use of all the disposable naval forces and the sending of a few troops; but with blind obstinacy, the French government, in all its instructions, went on, in somewhat puerile fashion, reiterating its fixed idea of *having in hand a guarantee with a view to reopening negotiations*, and refused to furnish the troops. So, to satisfy this fixed idea, important forces, which would have been much better employed elsewhere, had to be left stationed before Kee-lung. The reverse of Tamsui, and the obligation closely to blockade Formosa, were to demonstrate the ineffectiveness of this method to bring China to yield to the French demands. As we know, it was only by stopping the exportation of rice that this result could be attained at last; this can not surprise us, for only in that way were the vital interests of China touched.

Even the foregoing very brief analysis of this campaign furnishes matter for important reflections.

We have there seen an admirable chief, full of energy and of wise resolution, having a very clear sense of the fundamental rules of the conduct of war and capable, surely, as he has proved himself, of accomplishing great deeds, if the blundering control of an authority exercised from thousands of miles away had not neutralized these incomparable qualities. Quite like Tourville before him, Courbet suffered from too heavy fetters placed by the government on his military actions.

In striking contrast to this is what will happen ten years later in the same theater. We shall not find then, at the head of the Japanese fleets, admirals of such exceptional worth as to deserve immortality, but on the other hand we shall see a staff already conscious of the impossibility of military improvisations, knowing what it wishes and with a firm will to attain to it, having prepared a plan of operations in conformity with sane principles and carrying it out to the end without weakness. We had "*the man*," but we neglected preparations for war, as well as war itself; in the contest between China and Japan, the conquerors did not have "*the man*," but they knew how to prepare methodically for war and to carry on war. This was an experimental proof that the system to which von Moltke owed his successes in 1870 is as excellent on the sea as on shore.

One other observation is necessary; there are no profitable operations possible in a war the details of which the political

power pretends to direct, when the distance of the field of action forbids its determining their relative importance and following their progress.

We have already had occasion to exhibit the productive freedom of action which Nelson of good rights enjoyed, the elasticity of the general orders given to him, wholly contained in the brief and clear formula: *to win command of the Mediterranean*, which permitted him to follow the enemy's fleet even to the Antilles.

Suffren, he also felt the full value of military independence when he wrote the Minister, de Castries: "*The king can be well served in these far off countries only when those in command have great powers and the courage to use them.*"

Moreover, our illustrious seaman had found a man capable of understanding him in this Minister who wrote to him: "*The king has announced to you in your instructions, Sir, that all courageous acts which his generals may do, even though they fail of the success which their boldness deserves, will be none the less honored of him, and that inaction is the only thing with which he will be displeased.*"

I have already affirmed under too many circumstances the necessity of building everything upon a system of definite responsibilities for anyone to suppose that I am defending the delegation of powers. It belongs to the national authorities alone to give the initial impulse, to establish what may be called the program of future hostilities, but if one makes war, of his own accord or because he is forced to, it matters not which, he must know how to make it; once the war has begun, its direction belongs to the military chief. Every other method leads straight to defeat, and if all the conquests of modern progress in the matter of rapidity of communications are to have for a consequence restraint of the indispensable initiative of the supreme commander in the field, all the benefits which they confer will not be sufficient to make up for their evil effects.

That is why I could not let slip the chance of expressing myself frankly on this subject. If there be need of supporting the examples of Suffren and Nelson, we have the great authority of Napoleon, the master of the subject. Treating, in his Mémoires, of the duties of generals, he expresses himself as follows:

"A general in chief is not relieved of responsibility by an order from a minister or a prince far from the field of operations and

knowing badly or not knowing at all the last state of affairs: (1) Every general-in-chief who undertakes to execute a plan which he thinks bad or injurious is criminal; he ought to make representations, to insist upon a change, finally to resign rather than be the instrument of the ruin of his own people; (2) Every general-in-chief who, in consequence of orders from a superior, delivers battle with a certainty of losing it, is equally criminal; (3) A general-in-chief is the first officer of the military hierarchy. The minister, the prince give directions to which he must conform in his soul and conscience; but these directions are never military orders and do not exact a blind obedience; (4) Even a military order is to be blindly obeyed only when it is given by a superior who, being on the spot at the moment of giving it, knows the state of affairs"

It seems to me well to give these quotations, not only because, with due regard for the proportions of course, they apply to the campaign we have just been considering, but also because they condemn the unfortunate natural tendency of the central authority, in almost all contemporary wars, in all countries, to meddle with the practical conduct of operations. I am inclined to think, for my part, that the repeated defeats of General Kuropatkin, on the plains of Manchuria, had no other original cause.

THE WAR BETWEEN CHINA AND JAPAN.

The war between China and Japan was carried on by the Japanese government, as I have already said, in an infinitely wiser way. A savage attack at the beginning, before any official rupture, was the first manifestation of the manner in which it intended to operate. By sinking, without formal declaration of war, a transport laden with Chinese troops, and by attacking some Chinese cruisers, the Japanese indicated their intention of not letting things drag out to great length. They, also, drew inspiration from the formula "quickly and thoroughly," and if, from the sentimental point of view, which we need not here regard, this action was of doubtful propriety, it offers in the special order of ideas of our studies a valuable hint.

And truly the execution of their plan, from beginning to end, was carried forward with the same resolution. The Japanese government well understood the whole value that can be derived from a seizure of guarantees; but it never thought of choosing them in

WAR ON THE SEA.

some useless island, almost unknown to the Chinese world, in any case too far from that empire's brain for events taking place there to make an impression upon it. It is in the Gulf of Petchili, in that way of entry to the capitol, that the Japanese are going to strike.

Their initiation into the military doctrines of high war was certainly of very recent date, since, less than a quarter of a century before, their sole war material was the Samurai's sword, and their navy had no existence, and yet they had been able so completely to assimilate them as to afford an example to more than one nation rich in old traditions.

"Aux nations bien nées,
La valeur n'attend pas le nombre des années."

I am tempted to point out an initial error which they made, although it had no evil consequences: their first effective military operation was the transportation of an expeditionary force to Chemulpo. Looking at it from a purely traditional point of view, it is certain that, *in the very interest of the success of this undertaking*, their first care should have been to "fall upon the Chinese fleet" to destroy it, or in any event to put it out of any condition to do harm, by blockading it in its port of refuge, and to assure to the Japanese navy the command of the sea.

Doubtless the very judicious arrangements made by Admiral Ito for the passage of the convoy, the protection of the transports en route by the squadron, the precautions taken to clear the way and to avoid any possible surprise on the part of the Chinese squadron, reduced to a minimum the hazard of this infraction of fundamental principles. With different adversaries than the Chinese, it might nevertheless have cost dearly, for a sudden attack, by a very small, manageable naval force, on a fleet embarrassed by the care of a convoy, will always put the latter in a very disadvantageous position.

The fact is that we must suppose the Japanese admiral to have had the conviction, which he certainly ought to have had, that with such adversaries as the Chinese he could permit anything; he was quite right in that. And this observation has its value, for as we have already many times pointed out, there exists in every war a psychological side which must not be neglected.

The commander-in-chief of the Japanese fleet, moreover, a few days after the combined operations at Chemulpo, was to return

to basic principles by seeking the Chinese squadron and inflicting upon it a defeat, near the mouth of the Yalu. It is particularly suggestive to note that Admiral Ito benefitted, to a very considerable extent, by a strategical error, due to Admiral Ting, and of the same nature as that which he himself committed in the operations at Chemulpo.

The Chinese admiral had himself decided, on September 16, to proceed to land troops, without having in the first place sought to destroy the adverse forces. There, where his rival had succeeded fully, he was to meet with a complete reverse, so true it is that only those conclusions which take account of many contingencies can be registered as truths in war.

Just as the Japanese navy was trained, disciplined, homogeneous, conscious of its own strength, so, to the same extent, the personnel of the Chinese fleet was made up of disparate elements, without either training or military education, with no binding ties, not even that which faith in a common ideal gives.

Therefore, even with equal material forces, Ito had the superiority of forces.

The Chinese admiral was at anchor on September 17, with his squadron, at the mouth of the Yalu, when the Japanese fleet was signaled; he at once got under way to approach the latter.

The two squadrons in sight were quite comparable, as well in number of ships as in their total tonnage, and also in their armament. The superior protection of the Chinese ships—even very decidedly superior, for the two battleships *Ting-Yuen* and *Chen-Yuen* had belts of 355 mm. and the two cruisers *Lai-Yuen* and *King-Yuen* belts of 240 mm., while among the Japanese ships the only battleships, the already old *Fuso* and *Hiyei*, had a central redoubt—was compensated by a real inferiority in speed.

These two naval forces advance against each other in very different formations. The Chinese admiral in a very open wedge formation the point of which was occupied by his strongest ships, while Admiral Ito had arranged his ships in column. Moreover this was not merely the ordinary long column of ships, but comprised in reality of two independent *homogeneous* divisions, or at least as *homogeneous* as they could be at that epoch, composed of similar ships ranged, in each of those divisions, in column.

This arrangement gave to the Japanese squadron all the advantages of flexibility of the traditional column with an increase of

WAR ON THE SEA.

mobility; this same scheme of formation was to be employed ten years later, with equal success, by Admiral Togo.

At this point of our exposition, having explained the respective positions of the two forces, we are strongly reminded of something. These positions recall to us the identical ones at the battle of Lissa, double echelon with center leading on one side and column on the other; but here the rôles are reversed. The column is in close order, flexible and manageable, as much as that of the Italians was open and sluggish; the compact formation is as little rigid as that of Tegethoff was resistant.

If ordinary common sense failed to do so, this actual comparison would suffice to demonstrate how little geometry counts for in the matter of battle formations.

The regular presentation of their bows to the enemy put the Chinese ships under extremely disadvantageous conditions for battle.

While the Japanese, presenting themselves broadside on by the development of their columns, had all their guns bearing, the Chinese could only use their bow guns and were thus condemned to a notable inferiority of gun fire. This inferiority was to become still greater after the first phase of the battle by reason of the very judicious dispositions taken by Admiral Ito. The latter, anxious to make up for the disadvantage of the insufficient protection of his ships, and at the same time wishing to profit by his undoubted superiority in speed and gunnery, while he kept his two columns at a distance from the enemy always greater than three thousand meters, followed a very gradually changing course, with the first division composed of the fast protected cruisers leading, so as little by little to outflank the right of the Chinese squadron. That wing, which was constituted of small cruisers of little military value, was almost immediately crushed, and the main force of Chinese battleships, turning two points to starboard to come to their assistance, destroyed all regularity in their formation; the fire of some ships became masked by others, and the battle was lost to the Chinese.

This battle of the Yalu, the description of which I shall purposely limit to this brief sketch, has given rise to much writing. Analyzed with passions and preconceived ideas inspired by reasons most often foreign to the single consideration of the technical question, it has sustained the most widely different opinions.

WAR ON THE SEA.

Later on the same thing will occur in relation to the Russo-Japanese war.

To show how necessary it is to be careful in formulating conclusions from the actual events of war, I will call attention to the fact that, from the mere consideration of this single incontestable result of the defeat of an armored squadron by another composed of only protected cruisers, the conclusion has been drawn that the day of armored ships is over.

As for us, wholly absorbed in the professional problem, and moreover knowing the importance of the associated facts, we shall avoid so superficial and hasty a judgment; but, insisting upon our right to free discussion, at least to that which is wholly based on experience, without seeking to distort it, we shall draw from this battle a lesson which, though less definite, will not be less useful.

The crushing of the two wings successively by the turning movement of the Japanese had resulted in reducing the resisting force of the Chinese squadron to the battleships alone. Overwhelmed by the fire of the whole Japanese squadron concentrated upon them, swept by an iron storm which struck down their masts and superstructures, smashed their guns and destroyed all their means of internal communication, these unhappy ships, after an action which had lasted four hours, were reduced to a state of impotency. They were ready to receive the death stroke, without even being able to strike a last blow as they plunged to destruction, when Admiral Ito, out of ammunition, withdrew from the battle field; lacking torpedoes, we must add, which at that moment without any risk would have been able to *finish* the Chinese battleships.

Thus, in spite of its brilliant success, the victory of the Japanese fleet was incomplete, and furthermore, though disabled to the extent of being military wrecks, the Chinese battleships still kept afloat. They floated so well, were so little injured as regards their buoyancy and in their essential parts, that a few months later they were able to serve under the flag of the conqueror.

After Punta-Agamos, Yalu reminds us that to reduce a warship we are not necessarily limited to the single and somewhat chimerical design of attacking her water-line, and finally that the limit of the capacity to resist of the personnel can be reached without destroying the buoyancy. Just like the *Huascar*, the *Chen-Yuen* and *Ting-Yuen*, without guns and fighting against fires, yielded to the effects of gunfire against their upper works.

WAR ON THE SEA.

Such in my opinion is the great lesson of the battle of the Yalu. This battle, which destroyed the balance of power in the Gulf of Petchili to Japan's advantage, gave the latter, from that time on, command of the sea. Thenceforth, the capture of Port Arthur by the Japanese army was merely a question of time, and with that place there would fall into the hands of the Empire of the Rising Sun one of the double gates of entry into the Celestial kingdom. The other gate, Wei-hai-Wei, remained to be taken; its conquest was the object of a combined operation of the fleet and army.

From a strictly naval point of view, the attack on Wei-hai-Wei has no other real interest for us than through the important co-operation of the Japanese torpedo-boats in the military enterprise. To tell the truth, the affair of Wei-hai-Wei was not the first entry upon the scene of these little vessels; already, in the Russo-Turkish war, they had made their proofs and shown what could be expected from these new instruments of battle when they were commanded by energetic and resolute men.

The offensive use of torpedo-boats, acting with the squadron assisting in the attack on Wei-hai-Wei, was perfectly logical. In the impossibility of the large ships approaching closely to the inner harbor without imprudently exposing themselves to the fire of the powerful batteries along the sea front, a night attack of the torpedo-boats was the only possible way to destroy what was left of the Chinese fleet.

At all events, it may be seen what a variety of ways there are of using these little vessels, and that it would be a pity to confine them exclusively to a passive rôle by assigning them permanent stations at the different parts of a coast to be defended. But it would be equally a mistake to assume that torpedo-boats are not weapons for coast defense. Their sea-going qualities, necessarily limited, require the proximity of safe shelters where they can take refuge in bad weather.

We shall see later on that at Tsushima the state of the sea did not allow using them during battle; so that they can not always be counted on as certain aids in purely offensive operations. They really constitute, applying Jomini's happy expression to the navy, the "defensive-offensive," and they offer proof of the correctness of the principle that the surest way to defend is to attack.

Wei-hai-Wei taken, the way to Peking was open, and the Chinese

WAR ON THE SEA.

government had nothing else to do but capitulate. Thus were justified the views of Admiral Courbet, and once more verified certain general rules of strategy that cannot with impunity be violated in the conduct of war.

If now, taking a general view of the Chinese-Japanese war, we seek to determine its character, it appears to us that, like many others, it has consecrated the influence of preparation for war, and proved its superiority over carelessness and indifference in military affairs, it has shown the importance of the morale and training of the personnel, and finally it is a guarantee that success will result from having a directing principle, a plan of operations, as opposed to absence of initial conceptions and reliance upon luck.

A firm will in the pursuit of a well-defined end will always triumph over indecision and lack of foresight.

CHAPTER IV.

THE WAR BETWEEN SPAIN AND THE UNITED STATES.

The Spanish-American war, like the one preceding it, embraces no great military facts capable of throwing by their lessons a brilliant light upon the vital problems of the constitution of fleets. Although certain consequences of the battle of Santiago, which really do not exist, have been imagined by minds imbued, perhaps, with preconceived ideas, it is really on account of its many moral lessons that this war is worthy of remembrance.

In that respect, the harvest will be rich. For no other war, perhaps, has shown to an equal degree the influence which neglect of preparation for war exercises upon the results of an armed conflict. From this point of view, we could not devote too much time to studying all its details.

It really seems as if in unhappy Spain the phenomenal carelessness concerning military organization is a sort of endemic and incurable evil, for warnings have not been wanting to her in the past. We have retained the vivid memory of the lamentable condition of the Spanish fleet at the time of the events of 1805, the incessant complaints of Villeneuve, as well as the contemptuous sarcasms of Nelson in regard to that naval force. It would appear incredible, then, that lessons so dearly paid for should not have profited that country, which, one hundred years later, was to go to battle under conditions quite the same as before. This example has an immense philosophical meaning, for us in particular; for, companions of the Spaniards in misfortune a century ago, we, at least, ought to draw moral profit from the persistent causes of their ills.

THE STRATEGIC ERROR OF SPAIN.

At the very beginning of this war, we find a strategic error on the part of the government, as we shall find a similar one at the beginning of the war between Russia and Japan; and it was this original error which, in both cases, bore with its whole adverse weight upon the conduct and the results of the war.

The Spanish government could not be unaware of the views of

WAR ON THE SEA.

the United States regarding the Pearl of the Antilles. The sympathies, avowed under all circumstances, of the American people with the cause of the insurgents, the secret or open aid which was extended to them upon the Union territory; everything, up to veiled or openly expressed propositions to purchase Cuba, made several times by the American government, was of a nature to open the eyes of the most incredulous as to the actual desires of America and the dangers to Spain which would result from them.

And the latter country, when war broke out in 1898, in complete naval anarchy, had not even the excuse of having been surprised by events, for these manifestations of the state of mind of the Americans were not of recent date. As long ago as 1823, Adams, Secretary of State, wrote: "*There are laws of political as well as of physical gravitation; and if an apple detached by the wind from the tree which produced it can only fall to the earth in virtue of the law of gravity, so Cuba, separated by force from her own connection with Spain, and incapable of standing alone, can only gravitate towards the North American Union, which, following the same law of nature, cannot reject her from its breast.*"

As may be seen, the desires were scarcely dissimulated; hence, if Spanish pride could not resolve itself to yield the island of Cuba at a good price, it was necessary to prepare a military force capable of defending it against any attempt at aggression and of holding on to it.

To defend Cuba there was a choice between two methods; either to make the coasts of that island bristle with forts and batteries, to sow the approaches of her bays and harbors thick with torpedoes and to maintain permanently a formidable army; or, on the other hand, remembering that another great island, Great Britain, had been able to preserve throughout the wars of the past the inviolability of her territory without forts or batteries, without torpedoes and without an army, in fact, without any passive defence whatever, but wholly by the invincible might of a powerful fleet, also to prepare a navy strong enough to command respect.

If we only reflect that every aggressive move against Cuba, necessarily having to be by way of the sea, required, prior to any military operation, the conquest of maritime supremacy, without which transportation of an expeditionary force is impossible, we will quickly agree that the strategic solution of the retention of

WAR ON THE SEA.

Cuba by Spain likewise depended upon that power's holding the command of the sea, and consequently, upon the building of a powerful navy.

In thus setting forth the necessary principle of what has been named the "command of the sea," we anticipate the conclusions which we shall draw from the study of history; but we can nevertheless, from now on, use the example, conclusive above all others, of Napoleon's designs against England, the sole cause of whose failure was his inability to assure the freedom of the sea.

Certain facts of the very war that we are now considering will be used later on to strengthen this argument.

The financial burden necessary to create a fleet was not so excessive that the Spanish nation, weighted down with debts as it was, would have been unable to support it. At the moment of the opening of hostilities, the American effective naval strength, in ships having a real military value, was actually five battleships of eleven to twelve thousand tons, *Iowa*, *Indiana*, *Massachusetts*, *Texas* and *Oregon*; two armored cruisers, *New York* and *Brooklyn*, of eight thousand tons; and eleven protected cruisers of a displacement varying from three to six thousand tons, *Cincinnati*, *Philadelphia*, *Charleston*, *Newark*, *Columbia*, *Minneapolis*, *San Francisco*, *Olympia*, *Baltimore*, *Raleigh* and *Boston*.

I do not mention steamships requisitioned by the Americans to serve as auxiliary cruisers, that reserve force of secondary importance being largely available at all times to both belligerents, and not requiring the patient and methodical preparation of fighting units of the first class.

To impose respect upon this surely modest fleet, it would have been sufficient to oppose to it, *concentrated in Cuban waters*, as homogeneous a squadron as practicable of twelve armored cruisers of twelve thousand tons, whose construction should have been the constant care of the Spanish government for more than fifteen years past. The cost of such represents a sum of three hundred million francs, to which must be added ninety millions for the protected cruisers necessary as its auxiliaries. That, however, is not all, for a fleet cannot shift for itself, especially in our times, and there are needful to it one or several bases of operations provided with abundant stores and the various requirements necessitated by the state of naval war. To be efficient, a base should be as near as possible to the theater of war; in the case we are con-

WAR ON THE SEA.

sidering the best situation by all means was on the coast of the island, at the very center of naval operations. Spain had only the difficulty of a choice between the numerous bays of the island. It is not exaggerated to compute at three hundred millions the expenditures for organizing a reliable and suitably equipped base for a squadron such as we have just described.

There would have been required, then, a total expenditure of six hundred and ninety million francs; spread over the preceding last fifteen years it represents an annual contribution of forty-six millions. Adding two millions, absolutely necessary for the military training of the personnel, for gunnery and squadron exercises, we arrive at a total of forty-eight millions, or let us say fifty millions in round numbers, as the annual financial burden that the certainty of safeguarding her colonial interests imposed upon Spain, outside of her normal budget of expenses for maintenance.

Such a sacrifice, relatively slight, was surely possible; it would have been a tremendous economy, in view of the very great loss sustained by Spain on account of a war waged under miserable conditions as well as through the complete suppression of the revenues which she drew from her American colony and which very often had served to balance the budgets of the mother country.

Doubtless objection will be made, based upon the tremendous additions made to its navy by the United States government, after the war of 1898, that if this contest could very certainly have been avoided by the means I have just pointed out, the fatal moment of conflict between the desires of North America and the resistance of Spain would merely have been delayed. I willingly recognize it, and I am willing to admit equally that Spain, poor and in want, would not have been able long to resist the all powerful influence of the American dollar, sovereign master in the maintenance of that costly luxury, a strong navy.

But anything was better, under any circumstances, than that struggle without honor or dignity undergone by the Spanish government, and if naval strength was really beyond its means, it had only to take to itself the very just remark of Napoleon, apropos of the cession of Louisiana: "*No colonies are possible without a navy,*" and in its turn consent to give up Cuba.

It is because these preliminary critical remarks have reference to a situation not at all peculiar to Spain that I have so readily

WAR ON THE SEA.

yielded extensive consideration to them. We shall have occasion to revert to it with greater detail when we study the contingencies of possible conflicts, and to show how this example concerns to the highest degree our own country.

It is on that account particularly that I have thought it necessary to emphasize an initial political error which hampered the whole conduct of the war by its evil influence, and by itself alone brought about Spain's defeat. And if we were limited to the mere study of high strategy, we could at this point stop in our examination of the Spanish-American conflict. The causes of Spanish disasters are already sufficiently indicated, so true it is that the politics of a nation are the true inspiration of the strategy of its armies, the directing idea of its military action.

"Give me good statesmanship, and I will give you sound finance," said Baron Louis. It would be equally true to say: "Give me good statesmanship, and I will give you adequate military forces." The bond between the one and the other is indissoluble; the example of Spain is the proof to be pondered by many other nations.

THE FORCES OF SPAIN.

The Spanish navy entered upon the struggle in a condition of the most lamentable inferiority, and not alone through its insufficient material, but especially through the lack of preparation of its personnel.

It comprised four battleships of from seven to nine thousand tons, four armored cruisers of seven thousand tons, and four protected cruisers of from two to four thousand tons. Of the four battleships, two old and obsolete units, *Numancia* and *Vittoria*, are only named as a matter of form. In reality, the only real strength of the Spanish fleet was in the two battleships *Pelayo* and *Carlos V*, and especially in the very homogeneous division of the four armored cruisers *Infanta Maria Teresa*, *Viscaya*, *Almirante Oquendo* and *Cristobal Colon*; though this last was without her two heavy turret guns of 25 cm.

Although this was the case, the Spanish government, in one of the many manifestations of its stupefying incompetence in the affairs of war, heedless that the first step towards success is to seek the superiority of forces which concentration at one point alone can give, did exactly the wrong thing by dividing its own.

WAR ON THE SEA.

Under the impulsion of an energetic and bold leader, much might have been hoped from the action of a squadron formed of these six ships; at all events, it would not have been negligible, being concentrated, and, lacking other advantages, would have been able to save by its resistance the military honor of Spain. This arrangement was really planned for a moment at the beginning of the war, but it remained a project only.

This fundamental principle being violated, the two battleships placed under Admiral Camara, as we know, played no useful part in the war, and even had to suffer the ridicule of a futile sortie towards the Philippines.

As for the division of armored cruisers, the only force to which Spain was willing to prescribe a semblance of action, it was far from having the ardent and warlike chief, the leader of men whose appearance upon the scene we have above evoked.

Who is now ignorant of the lamentations of the unfortunate Cervera? Complaints, before the war, during it and after it, of the miserable condition of the material, the incapacity of the personnel, the poverty of the most essential articles, etc., protests against the orders he receives; all these weaknesses have been fully displayed and have exposed to their smallest details the faults which have made Spain incapable of victory.

That unhappy admiral knew not Bülow's fine saying: "*One is never whipped so long as he refuses to believe that he is.*"

Furthermore, this condition of moral depression in a leader invested with the redoubtable honor of a great military responsibility is no novelty to us; in Cervera we find the same state of mind which, in Villeneuve, spent itself in endless lamentations over the bad condition of his ships, the difficulties which interfered with the execution of the orders given him, etc. And what makes the resemblance still more striking is that, a century apart, the two leaders, alike brave individually, but equally incapable of effective action, found their force of protest in the single thought of a personal defence before the perhaps too severe judgment of posterity.

Upon reflection, this need not astonish us: Villeneuve and Cervera were merely the natural products of two equally feeble organizations, the French navy at the end of the eighteenth and the beginning of the nineteenth centuries and the Spanish navy at the end of the latter century. Generals-in-chief are only able to reflect

WAR ON THE SEA.

the environments in which they were developed. To have men equal to becoming *great leaders*, there must be necessarily, except under extraordinary circumstances, schools of energy, and they were not to be found in either of the two navies referred to. The preceding philosophical observation has a very wide application, for it is a precept to be remembered always and everywhere.

As extenuating circumstances, we must by no means forget the extremely insufficient resources placed at the disposition of these two seamen, and though their poverty of action must be charged against them, the greatest part of the responsibility for the disastrous results rests beyond any doubt upon their respective governments.

At the moment when Cervera received orders to set sail, he lacked the most indispensable appliances: his ships had been unable to fill up with coal at Carthage, his supplies of ammunition were incomplete; there was nothing, even to charts of the West Indian seas, that was not wanting on his ships.

The letters of Admiral Cervera, from which I shall frequently quote, are taken from the interesting translation published in the *Revue Maritime* by Commander Mourre.

Under date of March 3, 1898, the admiral wrote to his Minister: "*My reflections which so painfully affect you are doubtless very grievous, and yet perhaps I am short of the whole truth! A proof of this is the lack of money which makes the acquisition of cartridges for the Colon difficult, and this on the eve of war against the richest nation in the world. Even here, when it is a question of reloading the empty fourteen-centimeter cases, I have been told that it is impossible No matter what the occasion, our lack of resources, the absence of organization, IN A WORD THE WANT OF PREPARATION, is immediately apparent.*"

Let us compare with this the letter which Villeneuve wrote to the Minister Decrès on January 7, 1805.

"*My dear General, I have ceased to write you private letters because I have thought this method bothered you and I fear nothing so much as being a burden. I wrote thus to you on my arrival at Toulon and you did not answer me. It is true that I ask for money with good reasons, to which it suited you not to reply.*"

The likeness, as may be seen, is striking. To the too well founded remonstrances of Admiral Cervera, the Minister of Marine finds only these words of reply: ". . . . Your calcula-

tions do not take account of the difference which exists between homogeneous crews, trained and disciplined, and the mercenaries of the United States."

We know this refrain; it has served and will again serve the ministers of all countries to make a sentimental and passionate diversion, instead of replying to often embarrassing questions as to the condition of the naval material.

To understand what it was worth in the case of Spain, it suffices to know a little anecdote which was related to me by a person worthy of belief, and which goes back to the acceptance trials of the *Cristobal Colon*. The trials of this cruiser, built by Ansaldo at Genoa, had been conducted by the constructor's men and had gone along most satisfactorily up to the time established by the contract when the machinery was to be put in charge of the ship's regular crew. On that day the watch of Spanish firemen had just replaced the contractor's men in the fire rooms, when the enticing sound of the signal for the crew's dinner was heard. With a touching unanimity, the firemen immediately abandoned their furnaces, powerless to resist the call to food and the provoking image of the cigarette which was to follow it. There was a *discipline* beyond the possibility of characterization.

The analogy to which I referred above is not merely accidental, it is complete. Villeneuve wrote again, on his return from the sortie from Toulon on January 18, 1805, in the letter from which I have already quoted: "*Fortune did not fail me on this occasion for if I had been sighted by the English squadron, it would have been impossible for me to escape it, and even with inferior forces, it would have completely routed us.*"

And the following day he adds: "*I beg you to remember that I did not desire the command of this squadron I very earnestly pray that the Emperor may not commit any of his squadrons to the hazard of events I should be greatly pleased if the Emperor would relieve me from the command.*" Later he was to write from Cadiz on August 22, 1805: "*I have been unable to perceive any good whatever in the campaign I was to undertake. I would pardon the whole world for casting stones at me; but naval people in Paris and in the bureaux who join in doing so will be very blind, very contemptible and above all very foolish.*"

Cervera, likewise, despairs before he has made any trial; he makes numerical calculations showing the crushing superiority of

WAR ON THE SEA.

the Americans, he complains of the poverty of his ships, he proclaims the certainty of his defeat. Later, at Santiago, he will express, just as Villeneuve did, his indignation at the views of his colleagues in Madrid, as well as his desire to be replaced, to see "*the cup of responsibility taken from his lips*," a terrible phrase, for it is the courage to take responsibility which makes great leaders; in fact, imitating his precursor, he does all things which can stifle what little moral force the Spanish navy may still have, but none of the things necessary to revive its flagging energies.

Admiral Cervera to General Blanco, Santiago, June 27: "*I am of opinion that there are many seamen more skilful than myself, and it is regrettable that one of them cannot come to take command of the squadron, in which I would remain as a subordinate.*"

It is not for artistic effect that I have called attention to this curious parallel between two personalities of which one, after the lapse of a century, is the image of the other. What I have really aimed at is to bring into comparison two systems, or more exactly, for these two systems are one and the same, I have tried to bring out the fact that in different surroundings, times and circumstances, and with very different instruments, the same results were produced by the same cause, unpreparedness.

And in the two cases, in 1805 as well as in 1898, there exists, as a matter of fact, but *one single cause for the final disaster*, the absence of preparation for war, which betrays itself in the bad condition of ships, the lack of resources of all sorts, the poverty of the crews, their lack of instruction and training, and what may be summed up as military weakness.

CERVERA'S SQUADRON.

In Spain's case there was one more aggravation, and a tremendous one, at that. Villeneuve at least knew what his Emperor desired; he knew it only too well. We have considered at its proper place Napoleon's strategic plan, which had at least the immense merit of existing. As for Cervera, he, when setting out for the West Indies, is ignorant of the motives for his departure, does not know what is expected of him and of his squadron. Beyond doubt this is because his government was equally ignorant. All that part of the official correspondence which refers to the matter is worth recalling, to serve as a real lesson in affairs, a mournful lesson. "Cadiz, April 4, Admiral Cervera to the Min-

ister: *Having no instructions, it would seem well that I proceed to Madrid to obtain them and to fix upon a plan of campaign.*" And the Minister replies: *"In the midst of this international crisis, it is impossible to formulate anything precise."*

What the Minister neglects to say is that it would be impossible to make a more explicit confession of incompetence. Thus in the councils of the Spanish government nothing was foreseen, nothing planned. The question was not even asked what should be done in case facts gave the lie to their optimistic anticipations. They let themselves be surprised by the war as by a sudden flash of lightning out of a clear sky. This is inexcusable, for the storm which then rumbled had been gathering slowly, beginning as a cloud at the opening of the century and growing day by day. It is therefore a very true saying that nations suffer only the misfortunes they deserve.

The unhappy admiral protests once more before leaving Cadiz: *"Allow me to insist upon the necessity of agreeing upon a general plan of campaign, in order to avoid fatal vacillations. The government doubtless has its plan, and it is indispensable that I should be informed of it, so as to be able to co-operate with it efficiently."*

That the government's plan had no existence is beyond any doubt, and the reply made to the admiral proves it: *"The urgency of your departure prevents for the moment making known to you the plan which you ask for. You will have it in all its details a few days after your arrival at Cape Verd, by a steamer loaded with coal which will follow you."*

What is there then more important than for the executor of the government's will to know at the crisis of the game what is expected of him and where he is to go? The shocking discrepancy between the great importance of war orders and their expedition by a collier shows well that the minister sheltered himself behind the dilatory formula *to-morrow*, as convenient for governments as for individuals in an embarrassing situation.

From the Cape Verd islands, Cervera returns again to the attack: *"I request precise instructions for the contingency of war not having been officially declared at my departure."* And this was the incredible reply: *"I am unable to give you more precise instructions."*

Finally, before definitely starting for the West Indies, the commander of the Spanish squadron writes anew, after complaining

WAR ON THE SEA.

of the poor condition of the ordnance: "*At the end of all there is neither plan nor agreement such as I have so much wished and vainly proposed . . . and so already disaster is upon us.*"

It might appear that I am wasting time in formulating comments of the nature of truisms concerning these official documents of a history written scarcely seven years ago. But when we think that less than six years after these events a nation, Russia, disposing of much more formidable resources than Spain, was to give to the astonished world the spectacle of the same blunders, of identical errors, of similar weaknesses, we must recognize that certain truths, however evident they may appear, have need to be repeated over and over again in order to be understood by nations that have not yet undergone the trial of war, or have forgotten its teachings.

In view of the fact that the principal Spanish force was so unfortunately constituted, it may well be asked, what could be the object of the government in sending it to the West Indies? Opposed to very much superior forces, this squadron evidently could not have any pretention to seizing upon command of the sea by force. Was it intended, then, to limit its rôle to a continuing threat against the American naval forces, and to employ it as a *fleet in being*, to adopt the expression first used by Admiral Torrington after the battle of Beachy Head, and used again with great good judgment by Mahan in his critical study of this very Spanish-American war? In principle, the use in war of the *fleet in being* is perfectly defensible for the weaker nation, and, for the matter of that, the squadron constituted as it was would have admirably played that part, if the real value of its units, which were all fast cruisers, had faithfully represented its theoretical value.

Unhappily this was very far from being the case; the speed of these four ships, splendid on paper, was purely fictitious, on account of the incapacity of the engine room and fireroom forces, as well as because the machinery had not been kept in proper repair. And that is not all; the essence of a "*fleet in being*," its sole raison d'être, is its mobility; it is by this precious quality of being able to appear now at one point and now at another point of the theater of war that it constitutes a threat serious enough to paralyze any operations of wide scope on the part of its adversary.

The truth of this was exemplified on June 8, when the Ameri-

WAR ON THE SEA.

can expedition was ready to set sail for Santiago; for a telegram, bringing the information, quite untrue moreover, that a group of suspicious ships had been seen off the north coast of Cuba, was enough to cause the order to sail to be countermanded, so that the departure did not take place actually until six days later. The effect produced by this false news was so great that the government did not hesitate to order Sampson to send two of his battle-ships to Key West; as a matter of fact, however, the commander-in-chief of the naval forces did not obey this order, and he did well not to. But this mobility, this intensity of life is only possible nowadays during very short periods, at the ends of which, under penalty of breaking down, our modern ships are obliged, by the inexorable necessities of their constitutions, to return to port for supplies, in the shape of coal and renewals of all sorts. And this means, in the last analysis, that, for a "fleet in being," a base of operations, abundantly provided with the varied stores without which the war ships of the 20th century are but inanimate carcasses, is at least as necessary as it is for an offensive fleet.

But there was no such base for Cervera's fleet. The most indispensable supply, coal, was so stingily measured out to him, that even before he had reached his destination, the Spanish government, through various channels, announced to the admiral by telegrams the successive sending of five thousand tons to Curaçao and of two English steamers, each carrying three thousand tons, to Martinique. Cervera never received them, and moreover it was too late; it is not when operations have begun, and everything is made difficult and complicated as a result of hostilities, that it becomes necessary to think of procuring necessary supplies; it is during the time of peace that it is useful to accumulate them at judiciously selected points. No one would think, in private life, of waiting till the storm bursts and the tempest begins to rage before building himself a shelter; it is during the prior period of fine weather that each one takes his precautions.

It does not seem any more difficult to admit that for this storm of war, more terrible than any other, it is wise to proceed in the same manner.

Thenceforth, what could be hoped for from this starveling squadron, on a fruitless chase after fuel; what reserve of energy was to be expected from the hunger stricken? If the choice of Santiago for the squadron's destination was a strategical error,

WAR ON THE SEA.

that was a fault of small moment and a consequence of the veritable error, that irreparable one which entailed the defeat of Spain—lack of preparation for war.

Certainly it would have been better had Cervera led his squadron to Havana, the attack upon which would have demanded from the American expeditionary forces a much greater effort than at Santiago, on account of the more important resources of every nature possessed by the former place, and which it is not excessive to estimate at fully ten thousand men; or even at Cienfuegos, which is connected by railroad with Havana. But one must not lose sight of the constant preoccupation of the Spanish admiral to get his forces into shape, and, in the absence of precise orders from his government, it was the port where he hoped to be able to do this the soonest and the easiest that he selected.

He intended, moreover, to set forth again on the very next day, his coal once aboard; but the difficulties of coaling prevented. There is in this example warning of the far reaching importance of having bases and coaling stations equipped with all necessary machinery and apparatus.

To appreciate the result of this unfortunate choice, we need only glance at a few quotations. On May 19, the very day of his arrival at Santiago, the admiral telegraphed to his Minister: "*I shall have need of more coal than there is in this port;*" and his chief of staff, Commander Concas, in the account which he wrote of the squadron's movements, expresses himself thus: "*We set to work taking in coal with frenzy; but everything is wanting, even baskets, and the difficulties are such that, even with the help of working parties of soldiers, we do no more than a hundred and fifty tons a day, and each ship, with fires out, burns from four to five tons in the same time.*"

This truly is black despair, and despair is a poor counsellor.

On May 22, Cervera again telegraphed: "*There is not enough coal here to fill us up, but, if the collier which left Curaçao arrives, there will be some left over.*"

Nothing is lacking to this distress, not even the hopeless watch, which, like Sister Ann's, catches no glimpse of that coal ever announced by the government and which never comes. At that very moment there were nearly thirty thousand tons at Havana, and this observation only makes the clearer Cervera's error in choosing Santiago.

WAR ON THE SEA.

This question of the best destination for the Spanish squadron has supplied material for numerous controversies; some have pretended that Santiago was well chosen because it removed the American action the furthest possible from their base of operations, Key West, while Havana was much nearer to it. Knowing as we do now what a poor leader Cervera was, we may well doubt the depth of intention which is attributed to him. The sole and only cause of his entry into Santiago was his anxious haste to coal, a desire shown also by his stopping at Martinique, and then at Curaçao, as he had anticipated before leaving Cape Verd, without allowing the state of war to modify in any way his plan. Having neither the means, nor the idea either, of resorting to scouting to obtain information as to the enemy's movements, he entered Santiago quite simply because that port was the first on his route.

It is himself who tells us so, moreover, for he wrote on May 25, to General Linares: "*It is regrettable that my bad luck brought me to this port which is so destitute of resources, and that I chose it thinking, since it had not been blockaded, that it would be well supplied with provisions, coal and various stores.*"

All the more or less profound combinations which have been attributed to him are purely imaginary. I repeat it—Havana would have been much preferable, in spite of its proximity to Key West, not only because the squadron would have found there resources which did not exist elsewhere, but because by that course Spain would have brought about a *concentration* of her forces of all kinds. The governor of the island had an army at the seat of government, which his adversaries estimated at fifty thousand men, but which really could have been brought to twice that number. In estimating at one hundred thousand men the force which the Americans would have needed to reduce Havana, I believe I am really below the mark. I have the right to think so, and even to express some doubts as to their being successful at all, when I remember the many disgraceful events of the so much more modest expedition which was made against Santiago, the scenes of disorder when the expeditionary force was being assembled, and its singularly heterogeneous composition.

It is certainly curious to note that, if Cervera had made for Havana, or Cienfuegos, no hostile force would have been able to oppose his entrance, since neither Schley nor Sampson happened to be there the day when the Spanish division would have arrived.

WAR ON THE SEA.

By shutting himself up in Santiago, on the contrary, Cervera, completely destitute, by that very act put an end to his "fleet in being," and permitted the American fleet to possess itself of command of the sea by strictly blockading him there. After that it was at least as much the extreme distress which I have above explained as the criminal pressure from a government under the influence of I know not what political aim, ignorant of military necessities and devoid both of sincerity and intelligence, which determined the Spanish squadron to effect its heart-rending departure.

On May 24, after holding a council of war of his commanders, Cervera telegraphed to the minister: "*The squadron being ready to leave port to seek elsewhere supplies which are lacking here, I have consulted the commanding officers.*" Their opinion being adverse to going out, on account of the reduced speed of the squadron (fourteen knots, due to the foul condition of the *Viscaya's* hull), they did not start, and on the next day found themselves blockaded. And it is necessary to state that, in the deliberations of the council of war, the possibility of fighting, even a partial engagement, or even of any military operation whatever, was never so much as glanced at. One single objective exists, flight towards another shelter. A sad state of mind which explains the defeat to come.

This thought is again found in the same letter to General Linares from which I have already quoted a passage: "*In thinking of the probable upshot of a blockade, I consider myself fortunate to be able thus to occupy the greatest part of the enemy's fleet, for it is the only service that can be expected of a squadron so small and so ill armed. I beg you to make these explanations known to the Captain-General, in order that he may understand the cause of my apparent inaction.*"

What poverty of military understanding! And what a strange conception by which the act of kindly offering to an adversary, without a struggle, full liberty of movement and what we already understand as command of the sea, is made to appear as a service rendered to his own cause!

On May 25, the squadron has only provisions for one month, and on June 20 General Blanco telegraphs to the Minister of War: "*The entry of Cervera's squadron into Santiago and its stay there*

WAR ON THE SEA.

have completely changed both the objective of the campaign and its aspect, and thereby also the value of the provisions and coal on hand and the supplies of certain places It would be better perhaps to go to Cienfuegos or Havana, which is still possible, or even better to start for Spain; anything rather than to remain shut up in Santiago, exposed to the necessity of surrendering, starved out."

So then hunger is to chase the squadron from its refuge; but not hunger alone. Interferences from without, ill-omened as are all those which emanate from an authority far removed from the scene of events, are to drive forth, against its will, this unhappy squadron and to precipitate the inevitable disaster.

In this same letter from which I have just borrowed an extract the governor of Cuba asks for supreme authority over all the military forces of the island. This demand is beyond any doubt legitimate and conforms with the true principles of war as well as with the efficient use of forces, which requires an undivided authority to command them, but he only demands these powers to misuse them and *from a distance* to weigh upon the admiral.

"It is unfortunate," says General Blanco, *"that the independence enjoyed by Cervera's squadron has prevented my interfering with its movements, and I have suffered therefrom I respectfully suggest that this is a favorable moment for unifying military action in the present war by giving me the authority of commander-in-chief over all the land and sea forces on these shores."*

The ministerial despatch, conferring upon the governor the higher powers which he requested, is dated June 24, and on the following day the pressure begins by a despatch in cypher addressed to General Linares:

"I am of the opinion that he (Cervera) ought to set out as quickly as possible for the destination which he considers the most suitable, for his stay in port is the most dangerous of all things To lose the squadron without fighting would have a terrible effect in Spain and everywhere."

The accuracy of the final reflection is incontestable, but the responsibility for this lamentable result must rest upon a higher authority than the unfortunate admiral; more than anything else the improvidence of the Spanish government was responsible, an

WAR ON THE SEA.

improvidence which would be incredible were it not proven by official documents.

General Blanco returns to the charge, several times, on succeeding days, becoming each time more pressing and at last, having obtained the approval of the government at Madrid, giving the order to depart three times on July 1 and finally an imperative order on July 2.

To understand the exact extent of the pressure put on Cervera, it suffices to consider the words spoken at one of the meetings of the council of war of commanders of the Spanish squadron, that of May 26, by Commanders Bustamente and Concas. Both state that they believe in their soul and conscience that the government at Madrid *wishes the destruction* of the squadron, in order to have an excuse for concluding a peace.

"It is necessary then," says Commander Concas, *"to go forth, not because it is reasonable, but because later on, under conditions probably worse, we shall without doubt receive a formal order to do so."*

We have already had occasion to point out, in occurrences of war, certainly less serious than these, the pernicious influence experienced by the untimely interference of a central authority in the details of the conduct of war. In this tendency of governments to wish to direct operations from a great distance away, a tendency greatly accentuated by the facilities of all sorts which modern progress affords for the rapid transmission of orders, I perceive a great danger for the future. That is why I thought it right to revert to the subject. The true doctrine, without any possible doubt, is that formulated by Napoleon, and every general-in-chief who has proper understanding of his responsibilities ought to be guided by it.

Although in the domain of strategy the largest part of the errors committed must be blamed upon the Spanish government, the responsibility for the tactical errors of the desperate sortie from Santiago belongs wholly to Cervera. The official correspondence, with which we already are acquainted, has revealed to us the remarkable state of mind of the commander-in-chief of the Spanish squadron, as well as of most of his captains, relative to their departure; there was for them no question of fighting, selling their lives dearly, and at least offering to their poor country the alms of a little glory; their one thought was to flee.

WAR ON THE SEA.

This fixed idea may be discovered in a despatch from Cervera to the Minister, dated June 23: "*As it is absolutely impossible for the squadron to escape under these circumstances, I expect to make as good a resistance as possible, and then as a final resort to destroy my ships.*"

The question is more and more, why did the Spanish send war ships to the West Indies when their commander perceived no other result than either flight or suicide? What then is a war ship, if it is not an instrument to fight with?

But in any case, assuming Cervera's point of view, that is to say, seeking to gain a better provisioned port than Santiago for the purpose of refitting, it is impossible to understand why he did not make that sortie at night. In the council of war of June 8, Commanders Bustamente and Concas had expressed the opinion that they should go out by night, taking advantage of the period of absence of the moon. On June 26, the government itself recommended to Cervera this night attempt; but such a manoeuvre is too bold for the poor weak soul of the commander-in-chief. It is the characteristic of his moral feebleness to evoke phantoms, to see difficulties everywhere. One night he ascends to the high battery of *Socapa*, and the sight of the American ships on the blockading line, with their search lights turned on the entrance, is sufficient to make him despair of any possible success. Those luminous rays, across the darkness, take in his fevered eyes the fantastic appearance of insurmountable barriers. Not once does he say to himself that a resolute attack is by itself a chance, that it necessarily produces in a line of blockade a disturbance from which advantage can be drawn, that a blockading ring by night is not so unyielding that it cannot be broken at one point and a sufficient disorder made there to prevent its reforming before an escape has been effected, that in such a disorder nothing is more like a friendly ship than a hostile one, and that this confusion profits above all the attack; finally that a night battle is too indefinite not to be advantageous to the weaker.

For him the chance of success remains hidden in the dark shadows of the night; but in revenge he perceives the difficulties, all the difficulties, as through magnifying glasses. The narrowness of the channel, which obliges the ships to go out one by one; the impossibility of passing through it under the blinding light of

WAR ON THE SEA.

the enemy's search lights without going aground; the opinion of the pilots that the *Colon's* draft makes his going out more difficult, etc.: all the pretexts are put forward and exaggerated to mask the sole true motive of the choice of going out by day.

And this motive is given to us by Cervera himself in his letter of justification of October 7, 1898, addressed from Madrid to General Blanco: "*Counting as I did, on a fatal disaster, my task was reduced to having the smallest possible number killed and to not leaving the ships in the hands of the enemy.*" This letter was not published till 1900; but I have kept an exact remembrance of the quite accordant statement made early in 1899 in my presence, to the Minister of Marine, by a Spanish officer: "*We went out in broad daylight so as to let the greatest possible number of men save themselves when we ran aground.*"

From this sample it may be seen that if Spain knew not how to prepare her material forces for war, neither was she any more foresighted as regards her moral forces. Let us pause for a moment over one last quotation, taken from Commander Concas' memoir, from the chapter devoted to the battle of Santiago: "*On the practical side of gunnery, the enemy, who for two years has been preparing for war, has had frequent exercises; moreover, the bombardments of Porto Rico, Santiago and Daiquiri have enabled him to correct the defects in his material.*"

"*For our part, the 28 c. m. guns have fired in all two rounds apiece and what is frightful, on account of the little confidence we have in our cartridges, the 14 c. m. guns have never been tested and their first rounds are to be fired at the enemy. Except that, our ships are in perfect condition and as regards training are second to none in any navy in the world.*"

To use one of this officer's own expressions, what is above all frightful is to find in his account this sort of testimonial given as to the material and moral condition of the squadron after having ascertained its destitution of all which constitutes preparedness for war. Except for the guns, except for gunnery and target practice, except for trained gunners, except *that*, all is well; but *that* is the whole of war, because war is settled by battle. With officers in such a state of mind, which is but the image of the national mind, a nation is ripe for defeat.

WAR ON THE SEA.

THE CONDUCT OF THE AMERICANS.

Hitherto I have entirely disregarded the part played by the Americans in the war; this because, as I have already pointed out, its final result is almost wholly due to Spain's weakness, and because, in my opinion, the complete lack of preparation of her military forces, using the term in its broadest sense, is a full explanation of the war. The superiority of the Americans, which in the main resulted from the poor quality of their adversaries, was made apparent by plans; often doubtful, and sometimes incorrect, from the point of view of the theory of war, but easily rectified under the most favorable circumstances.

On this account I have been unable to understand the great admiration which Commodore Dewey's operations in the Philippines evoked, in his own country particularly, but also in many other countries.

The naval forces once in sight of each other, the disproportion was such that their encounter could only be butchery, not battle. Between the modern protected cruisers of the American squadron, of high speed and armed with powerful guns of 8-inch and 6-inch caliber, and the old fashioned Spanish ships, without speed or armament (for the *Reina Christina* alone had 16 cm. guns, the others having nothing bigger than 13 cm. and 12 cm.), the struggle was too unequal for the issue to be doubtful.

The battle of Cavite, therefore, has very little interest for us, and I shall confine my examination of it to a single brief observation. As though there were not enough elements of weakness in the very constitution of his fleet, Admiral Montojo added to them another, worse than all the rest, by awaiting at anchor the enemy's approach. He had forgotten Aboukir, or rather he exhibited, like so many others before him, the incurable physical and moral inactivity of the weak.

It was simple: the Americans, having retained their ability to manœuvre, passed back and forth in column before the anchorage, at the distance they had chosen and which they controlled, with their guns playing on the Spanish ships. It was a target practice, a gunnery exercise with stationary target, and here again the true lesson to be learned from this encounter concerns the inveterate weakness of the Spanish sailors much more than the strength of their opponents.

WAR ON THE SEA.

In the matter of the armed intervention of the Americans in the Philippines, on the other hand, there is much of interest to be said, for in that a fundamental principle of strategy is concerned.

The utility of operations in the Far East was more than doubtful. It must not be lost sight of, in fact, that the precise object of the war was the success of the century-old politics of the United States in *Cuba*; it had no other object. Every measure capable of endangering the success of operations in Cuban waters was therefore essentially bad; and such was the maintenance in the Philippines of a not inconsiderable part of the American naval forces, which, violating the principle of concentration of forces, weakened, without any advantage, the military action in the chief scene of the theater of war.²

Doubtless, against such weakness of mind and body as were Spain's, much could be permitted; but organisms which are the most exhausted by sickness sometimes have redoubtable death struggles. If, instead of sending four forlorn unhappy ships to the West Indies, under the orders of a new Villeneuve, Spain had placed all her available forces in the hands of an enterprising chief, to lead them to the West Indies and there to sell dearly the honor of the Spanish arms, the United States would have had none too great a force to make head against them and finally conquer. Therefore it was in the West Indian seas that Dewey's squadron should have been and not anywhere else.

To judge still better the question, it suffices to observe that all the military successes possible in the Philippines would have had no sort of effect upon the issue, if the arms of the United States had been unable to triumph in Cuba. The operations at the latter point were the only ones which answered to the aims of the war, and it was their success, consummated by the destruction of Cervera's fleet, which brought about peace, on the conqueror's terms;

² The author's conclusions are based upon his wholly mistaken belief that the United States anticipated war with Spain and prepared for it in advance. As a matter of fact, war was precipitated by the destruction of the *Maine* in Havana Harbor, and its sudden outbreak found a considerable part of the United States naval forces carrying on the usual duties of peace-time on the Asiatic Station. Under the circumstances it was hardly possible to do anything else but attack the Spanish forces in the Philippines. As regards this performance it may, at least, be said that Commodore Dewey did what he set out to do and did it as thoroughly as Nelson, Sufferen, or anybody else could have done it.—TRANSLATOR.

WAR ON THE SEA.

they would have equally entailed the surrender of the Philippines by Spain *if not a shot had been fired there.*

This does not merely demonstrate the strategical error of the Americans; it also lays bare the absurdity of the Camara undertaking, which never got beyond Suez; and, from a quite general point of view, calls attention to the pressing need of not having a scattering of objectives but, on the contrary, knowing how to choose from the always complicated grouping of interests in the vast field of war the one which is the most important.

Apropos of monitors, which he very rightly condemns, Mahan has very happily recalled, in his work, *Lessons of the War with Spain*, a splendid maxim of Napoleon which the American author considers to be *pregnant of the whole art and practice of war.* It applies even better, in my opinion, to what we have just seen of the strategic plans of the Spanish-American war. It is this "*Exclusiveness of purpose is the secret of great successes and of great operations.*"

Dewey's cruisers would have been so much the more useful in the West Indian sea because, as Mahan very clearly shows, the lookout and scouting service of the American squadrons was very defective. Thus it is that Cervera's squadron was able to gain Curaçao and Santiago without being sighted by the American cruisers, even though notice of its appearance off Martinique had been telegraphed on May 12 to the United States government from the auxiliary cruiser *Harvard*, which was undergoing repairs at Fort de France. Even more, the Spanish squadron entered Santiago on the 19th, and it was not until the 26th that Commodore Schley established the blockade of that port; nor did he obtain from spies exact information of the actual presence of Spanish ships in the harbor till some days later.

Yet it would have been very advantageous to the American naval forces to have come into contact with the Spanish squadron at the earliest possible moment. The battleship *Oregon*, having started from San Francisco before the declaration of war, arrived in the Atlantic in the midst of the hostilities. As she had left Bahia on May 9, while the Spanish squadron was to the southward of Martinique on the 10th, an attack upon this single vessel by the very superior forces of the enemy was possible and to be feared. Her destruction or capture would have been a very appreciable loss to the American navy, not only as being a notable weak-

WAR ON THE SEA.

ening of military strength, the battleship in question constituting a very powerful fighting unit, but still more on account of the moral effect upon the whole nation.

I have just said that this attempt on the part of Cervera was to be feared; such was the very firm opinion of Mahan himself. Hence re-enforcements should have been sent to meet the American battleship, keeping a close watch upon the movements of the Spanish squadron; or more exactly, for this would have been much the most decisive aid to bring to the *Oregon*, it was needful to get in touch with the hostile naval force, to fight and destroy it, in a word to cling to what the learned American writer himself calls "*the great objective which dominates all others and replaces them, the hostile naval force, when a reasonable chance offers of destroying it or one of its powerful parts.*"

The same author explains the abstention of the government at Washington from initiating a strategical operation logically called for, as due to fear of newspaper indiscretions. This very weak explanation would be surprising from the pen of so wise a writer, if the perception of his natural indulgence regarding the errors of his own country did not explain why he believed it proper to throw a veil over the real motives. And these motives arose almost wholly from a scarcity of cruisers, which once again rendered the organization of search and scouting very difficult.

The timidity of their adversaries, whose plans never for an instant were directed towards offensive action, even when they had a great superiority of force, as in the exceptional case of the *Oregon*, nullified the possible consequences of this error; nevertheless it was an error.

As a matter of fact, the American navy during this critical period could only appropriate to the scouting service four auxiliary cruisers, the *St. Louis*, *St. Paul*, *Harvard* and *Yale*, and two regular cruisers, the *Minneapolis* and *Columbia*. It was a small force with which to cover the approaches to the West Indies, and all the places where Cervera might appear. Thus the Navy Department was obliged to have recourse to torpedo boats for picket service, and this, according to Mahan himself, "*to the great hurt of their engines, not intended for long-continued high exertion, and to their own consequent injury for their particular duties.*"

I have underlined purposely part of the preceding paragraph, for it is not the American navy alone that deserves to be re-

WAR ON THE SEA.

proached with giving employment for which they are not at all suitable to vessels of small tonnage "*liable to serious retardation in a seaway,*" and with thus forgetting the application of the principle of specialization in warfare.

THE BLOCKADE OF SANTIAGO.

That simulacrum of naval force, Cervera's squadron, having taken refuge in Santiago, the problem became a very simple one.

Taking inspiration, according to Mahan, "*from the true general principle that the enemy's fleet, if there is any probable way of getting at it, is the objective which takes precedence of all others, because control of the sea by the overthrow of the hostile navy is the determining factor in naval warfare,*" there was nothing left to do but institute a close blockade.

The beginning of this blockade is also the beginning of really correct operations on the part of the United States naval forces. It is interesting to reproduce some of Admiral Sampson's orders, which will be read with profit provided the particular and exceptional circumstances under which they were written, as well as the far too unaggressive character of the defence, be not for a moment lost sight of.

The admiral had divided his forces into two squadrons, keeping command of the first and giving the second to Commodore Schley.

June 2, 1898: "*The vessels will blockade Santiago de Cuba closely, keeping about six miles from the Morro in the daytime, and closing in at night, the lighter vessels well in shore. The first squadron will blockade on the east side of the port, and the second squadron on the west side. If the enemy tries to escape, the ships must close and engage as soon as possible, and endeavor to sink his vessels or force them to run ashore in the channel. It is not considered that the shore batteries are of sufficient power to do any material injury to battleships.*"

"*In smooth weather the vessels will coal on station. If withdrawn to coal elsewhere or for other duty, the blockading vessels on either side will cover the angle thus left vacant.*"

The characteristic of this order is the feeling which it reflects of absolute security from any demonstration whatever on the part of the enemy; it is much more like an order concerning an exercise of times of peace than a war-time order. The admiral

who signed it could certainly afford to do so, for so far as the batteries in particular are concerned, we find justification in the letter already referred to from Cervera to General Blanco written from Madrid: "*Santiago was without artillery, in the modern sense of the word. Except for the guns of the Mercedes, mounted in the Socapa and Punta-Gorda batteries, there were only two 9 c. m. Krupp guns; useless against ships, and some howitzers and obsolete guns; so the enemy approached without fear, coming very close at night and taking stations around the entrance.*" Does not the mere fact of coaling on station indicate the full measure of a quite justifiable confidence.

"Order No. 13, June 7, 1898. After careful consideration of the various schemes of maintaining an effective blockade of Santiago de Cuba at night which have been advanced, I have decided upon the following, which will be maintained until further orders:

"The weather permitting, three (3) picket launches detailed from the ships of the squadron each evening, will occupy positions 1 mile from the Morro—one to the eastward, one to the westward, and one to the southward of the harbor entrance. On a circle drawn with a radius of two miles from the Morro will be stationed three vessels, the *Vixen* to the westward, from one-half mile to 1 mile from the shore, the *Surwancee* south of the Morro, and the *Dolphin* to the eastward, between one-half mile and 1 mile from the shore. The remaining vessels will retain the positions already occupied, but they will take especial care to keep within a 4-mile circle.

"All vessels may turn their engines whenever desirable to keep them in readiness for immediate use, and while so doing may turn in a small circle, but without losing proper bearing or distance.

"The signal for an enemy will be two red Very signals burned in rapid succession. If the enemy is a torpedo-boat these two red lights will be followed by a green one.

"I again call attention to the absolute necessity of a close blockade of this port, especially at night and in bad weather. In the daytime, if clear, the distance shall not be greater than 6 miles; at night or in thick weather, not more than 4 miles. The end to be attained justifies the risk of torpedo attacks and that risk must be taken. The escape of the Spanish vessels at this juncture would be a serious blow to our prestige and to a speedy end of the war."

In carefully reading this order, one would think himself in a

dream, and the mind inevitably reverts to those squadron exercises in which certain accepted hypotheses are unreal because the conditions of war are only feigned. But this concerns reality. In what peace-time exercises would one dare to allow as practicable such a stationing of three small boats, and the placing of ships on a line of blockade at so short a distance from the shore? Yet these were operations against an enemy. But what an enemy! It would seem impossible to imagine that one so easy to deal with could ever be found, if an actual example had not just shown us that passive fatalism can be found among all races. Lacking cannon, are there not then torpedos or torpedo-boats at Santiago, to forbid to the blockaders so reckless an attitude? No, there is *nothing*, and Cervera himself tells us so under date of June 20:^{*} "*Six sevenths of the 14 c. m. ammunition is unserviceable; the primers are unreliable and there are no torpedoes. These are the principal needs.*"

This official Spanish correspondence truly contains terrible ironies: *These are the principal needs*. But, if those needs are not supplied, it is life which departs, for they are the very soul of the struggle. If there are neither cannon nor torpedoes, at least Santiago still holds men, rifles and boats; they might attempt to take by assault those three American boats, were it only to take up the constant gage of which they are the symbol. But for this it is necessary to act, and the Spaniards dread action. It is therefore very true that Sampson has nothing more to worry about; for him have been fashioned adversaries who, as I have already observed, constitute by their own weakness nine-tenths of his strength and with their own hands prepare for him victory.

As it is absolutely inadmissible to count upon similar chances in the future, I should not have dwelt upon the dispositions taken in the blockade of Santiago, if I had not thought it useful to show once more to what a lamentable degree of feebleness a country may attain when it has not long and painstakingly prepared for war.

Others of Sampson's orders prescribe the use of search lights to illuminate the entrance of the channel, and regulate their employment as well as the method of keeping watch of the ships; finally they reduce to four miles the station distance.

^{*} The correct date is June 22.—TRANSLATOR.

WAR ON THE SEA.

This period of blockade, a true blockade of "petty warfare," furnishes matter for but two useful observations. The American squadron conducted numerous bombardments, expending ammunition to no account; just as in an operation of the same kind, and a perfectly useless one, previously carried on at San Juan, they obtained no results of value. And yet there was no energetic response to interfere with the bombarding gunfire. The Spanish forts, so ill equipped, replied little or not at all. What should be remembered is the waste of ammunition, out of all proportion with the result to be expected, which an attack by ships upon coast batteries entails, when the latter are sufficiently elevated, as at Santiago.

The second fact relates to the *Merrimac's* attempt to "bottle up" the Spanish squadron. It is interesting because it was the first of the kind, those more numerous attempts which we shall have occasion to note in studying the blockade of Port Arthur having been modeled upon it. Though it failed, for the sunken wreck on one side of the channel has never prevented the navigation of the passage, the principle itself of the attempt is a serious argument against naval ports with a single entrance or too narrow a one, and a warning in any event to provide for them an outer watch and defence service rendering any sort of surprise impossible. Without any doubt, such an operation is extremely delicate, and this is proved by the fact that the gallant Lieutenant Hobson, despite exceptional circumstances, never likely to arise again, which allowed him to reach the narrowest part of the passage without being seriously interfered with, was unable to succeed. But the luck may be better another time, and the accident of success is so much to be dreaded that too many precautions cannot be taken to prevent it.

Of the military expedition from Tampa to Santiago, I shall say nothing here. Of a truth it would not be well to seek there anything to imitate, but much rather examples to avoid. In this connection a new proof may be found of the *wholly relative* value of superiority of forces. Against a nation less inactive than Spain, less *flabby*, according to President Roosevelt's strong expression, there would have been great probabilities of a radical change of fortune in this war to the prejudice of the Americans.

I have gathered from the lips of a Frenchman present in Santiago during the whole siege some striking facts regarding the

respective situations of the two armies. At the moment of Santiago's capitulation, the Spanish troops still had ammunition and rations for six months; on the American side yellow fever had already produced such ravages that the volunteers of the expeditionary force were arrogantly demanding to be sent home. To explain under these conditions the unexpected denouement, now a matter of history, it is necessary to refrain from attributing it to the military forces, and to recollect that effective strength in war is not composed of material forces alone; it also comprises financial forces, visible or concealed.

THE SORTIE OF THE SPANISH SQUADRON.

I come to the decisive moment; the attempt of Cervera's squadron to escape from Santiago. It would be superfluous to enumerate all the details of this sortie, or more exactly this flight.

Where there is no intention of fighting, at least on one side, there cannot be matter for a tactical discussion; what the manœuver was is well known, the passing out of the Spanish cruisers in column; the despairing flight to the westward, at much reduced speed (less than fourteen knots) for theoretically fast ships, since battleships like the *Oregon* gained on them; finally the voluntary running ashore.

The action was neither more nor less than a target practice carried on by the American ships against a moving target, with scarcely more risks than those of a gunnery drill; this needs no further proof than the very statements of Sampson's official report, which establish the fact that less than a quarter of an hour after their exit from the passage, the *Infanta Maria Teresa* and the *Oquendo* had already ceased firing on account of being on fire; that the *total* losses in the United States fleet in this affair were *one* killed and *two* wounded, all on board the *Brooklyn*; and finally that *the Spanish gunners were as bad as possible*.

The American gunners, on the contrary, were very well trained. It is all the more useful to examine what the practical results of firing under such eminently favorable conditions were; it is not often that gun captains are so lucky as to have real ships for their target, and the lesson will be a profitable one.

The range varied between two thousand and four thousand meters. The number of projectiles of all calibers fired by the Americans can be estimated at six thousand; out of that immense

WAR ON THE SEA.

number there were only one hundred and thirty hits, which gives the very small percentage of 2.2. There is nothing in this which ought to surprise us, and I am not making these statements merely to recall figures which complete and verify the theoretical probabilities. But among the very various calibers used, eight 13-inch guns gave not a single hit, six 12-inch gave but two hits, and eight 8-inch only ten hits; all the rest of the hits came from the fire of the medium and light guns.

Upon this point, there is a very important remark to be made; when the comparative ballistic value of different guns is discussed, a relation is established between the effects of their projectiles, *supposing them to have struck the target*. Thus proposed, the problem is vitiated from the start, because it does not take account of the chances of hitting, which are strictly proportional to the number of shots fired and consequently to the number of rounds carried. But this number of rounds carried, and the resultant ability to fire a considerable number of shots, as well as the chances of hitting the target, are generally and in all navies, from considerations of weight and space which it is useless to inquire into, so much the smaller as caliber is greater. Such is the sole and correct explanation of the results given above. At the same time it is a complete demonstration of the error committed in adopting a diversity of calibers and giving fighting ships a very small number of big guns, theoretically of great power, but too ill supplied with ammunition to be reasonably sure of making a hit.

This is not all: of the one hundred and thirty hits counted upon the hulls of the Spanish ships, not one affected their buoyancy, not one reached their underwater parts, not to mention their essential organs; their machinery remained intact. And yet these instruments of battle had exceeded, long before the firing ceased, the limit of their resistance. Devoured by fire, having all their upper works torn to pieces, their guns destroyed, the ammunition hoists broken down, the means of communication cut, the fire mains riddled, they were no more than defenceless wrecks when they ran ashore.

Thus, without going back to the naval battles of sailing ships, following Punta-Agamos and Yalu, Santiago showed once again to the naval world what the battle of August 10 and especially that of Tsushima later on confirmed, that it is not at all necessary to sink and completely destroy a fighting ship to force its surrender,

WAR ON THE SEA.

but that this result is much more surely obtained by riddling that part of the target which almost all the successful shots hit, thus reaching the field of action of the personnel and so destroying the force of resistance of that personnel. It proves furthermore that it would be foolish in any case to base offensive action upon the hope of striking a single limited part of the target which by its very narrowness escapes being hit.

I will add in conclusion that the demonstration of Santiago is still more convincing than all the others, because the enemy did not defend himself, and the American gunners, in full possession of their faculties, found themselves placed in extraordinarily favorable conditions.

Next in importance to the disastrous consequences which absence of preparation for war entails, this is the most important lesson to be learned from the Spanish-American war. By itself alone it would justify the study of that war.

THE POPULAR OPINION OF THE FUNCTION OF FLEETS.

There only remains, in conclusion, to give due consideration to an absolutely erroneous popular conception which manifested itself with singular persistency in both of the belligerent nations during this war, and which it is the more necessary to combat because of its dangerous consequences and particularly because it is far from being peculiar to those two countries. To some extent everywhere in the world, except in England, public opinion sees in squadrons a system of defence for the coasts and the national domain. It is in an endeavor to destroy this false idea of the proper use of naval forces that I think it needful to elucidate this question.

On the Spanish side documents are not wanting to make clear the existence of this particular state of mind; we find it first in a despatch from the governor of Cuba under date of April 7, 1898: "*Public opinion is disquieted by the absence of any naval force. You will appreciate the favorable effect which would be produced by sending some war ships here.*"

The vague instructions which Cervera received at St. Vincent contained also the following phrase: "*If war is declared, your objective will be the defence of Porto Rico.*" General Blanco repeated his request on April 22: "*The enthusiasm here is great, but I fear a painful reaction if it is learned that the squadron is*

WAR ON THE SEA.

not to come. May I hope to see it arrive within a reasonable time?" The governor of Porto Rico had himself also telegraphed to the government two days earlier: *"I am ignorant of the whereabouts of the squadron. You know how scanty my resources are, and it would be well that we should be informed as to what our naval forces are doing."*

Finally, on May 17 and 18, having learned of an order sent to Cervera on the 12th, to turn back to Spain with his squadron, an order which the latter only knew of when he returned to Spain after the war, the governors of Cuba and Porto Rico made a further vehement protest against this decision.

On the side of the American people, the error is the same. It is Mahan himself, and his testimony cannot be doubted by anyone, who is to inform us upon this point. *"Our sea-coast was in a condition of unreasoning panic, and fought to have little squadrons scattered along it everywhere, according to the theory of defence always favored by stupid terror."*

Speaking of the effect produced in America by the announcement of the departure from Spain of Cervera's squadron, he says further, and I ask all to ponder his serious words:

"By some of the latter (the inhabitants), indeed, were displayed evidences of panic unworthy of men, unmeasured, irreflective, and therefore irrational; due largely, it is to be feared, to that false gospel of peace which preaches it for the physical comfort and ease of mind attendant; and in its argument against war strives to smother righteous indignation or noble ideals by appealing to the fear of loss—casting the pearls of peace before the swine of self interest."

The blind belief of public opinion, in America as well as in Spain, in the purely defensive rôle of fighting fleets appears with perfect clearness from the documents just exhibited. In that expression: *little squadrons scattered everywhere along the coast*, may be found condensed an idea so general, and still so wide spread, that it can be considered the expression of a universal public sentiment.

It is in obedience to this influence that the "flying squadron" of Commodore Schley was kept on the United States coast, contrary to the fundamental principle of concentration of forces, until the "fleet in being" of Cervera committed suicide by shutting itself up in Santiago.

WAR ON THE SEA.

It is because this feeling is so strongly rooted in the mind of the great masses of the people that it is necessary to strive to combat it by every means. That the task is a difficult one cannot be denied, because there exist in the body of the people very few of a character capable of elevating themselves to a point of general view, and of turning their regards from isolated facts so as to perceive only the general trend of events.

The enemy appears at some point on the coast, fires a few shots at the shore; demolishes some villages, even burns a commercial port. The instinctive, irresistible action of the people under the pressure of private interests which are menaced, is to demand aid and protection from the central authority; and the most efficient mode of protection unconsciously takes the form in their minds of that sort of floating and moveable *fort* which a fighting ship is.

Throughout the ages, the same story is told over and over again. To-day, the same as at the battle of Arbela, the question being between the immediate and accessory defence of some baggage and the quest of victory, we must decide whether we ought to take as objective the impossible task of succoring all the secondary ports threatened with some partial depredation, or whether we ought to pursue, as a unique and exclusive end, the destruction of the active forces of the enemy.

Our choice is already made, for we cannot forget that, among many other examples which we might have selected, England was saved from invasion at Trafalgar. That cape is not situated, to my knowledge, on the British shores.

A fleet is an offensive weapon, and the best method of defending oneself that has ever yet been found is by attacking.

CHAPTER V.

THE WAR BETWEEN RUSSIA AND JAPAN.

In devoting a whole chapter, and an important one, to the study of the Russo-Japanese war, I have not merely yielded to a very natural desire to examine events which are so much the more interesting on account of their recent occurrence. I have been particularly led to do so by the firm belief that this war abounds in *experimental* lessons in strategy and tactics, that it is also valuable for its numerous teachings regarding errors to be avoided, and that for divers reasons it demanded an examination in detail.

So far as the errors are concerned, we can say at once, even before an actual examination, that the number committed by Russia was beyond measure.

In the night of February 8-9, 1904, Japanese torpedo-boats attacked the Russian squadron anchored in the outer harbor of Port Arthur. This beginning of the campaign, as savage as it was deceitful, without preliminary declaration of war, might well surprise and afflict sensitive souls; yet, in the logic of events, it was the natural consequence of the Japanese temperament and the English education of their navy.

This carelessness on the part of the Russian sailors, their absolute neglect of the most elementary precautions in the matter of watchfulness, in the midst of a time of political tension, despite the suggestive warnings of English naval wars, have everywhere been charged against them as a grave fault which weighed heavily upon all their succeeding operations.

Their lack of care, undoubtedly blameworthy, dear as its cost to Russia was (for by the putting out of action of two battleships, the *Cesarevitch* and *Retvizan*, and the protected cruiser *Pallada*, she found herself from the start in a condition of undoubted inferiority), is nevertheless only a fault of detail, only a single term, among many others, in a long series of errors of the Russian

WAR ON THE SEA.

policy, which can all be classed as the result of an absolute lack of understanding of the preponderant importance of naval preparation for war with Japan.

THE POLITICAL STRATEGY OF RUSSIA.

The first of the series of errors occurred ten years before, when by her lease of Port Arthur, followed by the invasion of Manchuria, Russia inaugurated an active policy of expansion in the Far East.

From that moment, for two chief reasons, a war was inevitable, sooner or later, between Japan and Russia.

The self-esteem of Japan, a new recruit to Western civilization, and so much the more sensitive that her initiation had been rapid and was of very recent date, could not pardon her dispossession by the allied forces of Europe of a naval base which she believed to be her own by right of conquest. The time was to come when the beneficiary would have to bear the consequences of this resentment. When there is added the uneasiness which the encroachments of the great Russian Empire upon Chinese soil could not fail to provoke, and that Empire's constant approach to Korea, for centuries the object of the desires of the Empire of the Rising Sun, the probabilities of this war must appear numerous in the eyes of the most sceptical.

In stating this, I am taking into account the aspirations of her people. I know very well that, even at the beginning of the year 1904, no one thought there would be war, any more in Japanese governmental circles than in Russia. By a very curious coincidence, two days after the night attack at Port Arthur there was given to me to read a letter just come from the Far East, written consequently a month before the opening of hostilities, by a person well situated to know the sentiments of the Japanese authorities, and in which the opinion was clearly expressed that only in Europe could anyone believe that a conflict was possible. The proximity of date of the reception of this letter and an event so decisive as the torpedo-boat attack is suggestive of consummate irony.

They had forgotten, in the Far East, that there are many instances in history where the current of a superexcited public opinion, stronger than all the combinations of diplomats, recognizes no obstacles, hurries on governments impotent to resist and bears nations irresistibly towards inevitable encounters.

WAR ON THE SEA.

From the very beginning of the policy of expansion, then, it was necessary to prepare for war carefully and decisively. And this was so much the more needful because, though the repeated military successes of the yellow race are to-day a revelation for the immense majority of Europeans, accustomed to regard all the nations of Asia with the same contemptuous disdain, they should have been no surprise to all those who, scarcely twenty years ago, had opportunity to compare the warlike ardor of the Japanese with the submissive inertness of the Chinese, even in the most trivial affairs.

Russia to-day is paying the penalty of this capital fault of not understanding the pressing necessities to which her policy of expansion condemned her, a fault before the act as it were, and one compared with which all the others committed after the opening of hostilities, *although they derive from the same false principle*, are yet but of secondary importance. To make clearer my idea, I will say that Russia is now bearing the consequences of a fundamental error of strategy which from the beginning involved the fate of her arms and in advance marked her for defeat.

The question is worth pausing to consider, for unhappily Russia is by no means the only power in the world which has neglected this great duty of preparing for war which every far-sighted and strong nation fulfils along with a policy of expansion.

To found colonies, and to sow in them with liberal hand the riches which enhance their value, without developing *at the same time* the means of protecting them from the covetous, is to play the part of dupe and to work for others.

From the moment that the lease of Port Arthur was signed it was therefore urgently necessary to prepare for war with Japan, and the period of nearly ten years which followed would certainly have sufficed to secure Russia such a preponderance that the classic proverb would have once more proved true and peace been assured.

This being granted, how ought this war to have been prepared for? Here the problem becomes definite. For those who firmly believe that in the teachings of the military history of the past there are to be found laws and lessons from which modern wars can profit, this preparation must be above all and almost exclusively naval.

The future adversary was, in fact, an insular nation, and al-

though undoubtedly possessed of a strong army, this could only act by the efficient help of a powerful fleet, and one so much the more powerful as, its base of operations being beyond the seas, the condition necessary to its success rested on the retention of command of the sea.

Therefore it was necessary to be prepared to strike decisively at this navy. And such was in very truth the set problem. Let us suppose it for the moment solved, that is to say let us imagine that Russia had, at the beginning of 1904, in the seas of the Far East, a superiority of naval force, incontestable and admitted, over Japan. The disembarkation of the Japanese armies upon the Korean and Manchurian shores would have been perfectly impossible; and, if reason is insufficient to compel conviction upon this point, the teachings of the past furnish arguments beyond dispute. The study of our centuries-long struggles with England is particularly profitable in this regard.

While invasion of England by French forces has been an exceptional event in the course of naval history, the descents of the English upon the soil of France have been extremely numerous. In the one case, as in the other, these operations of invasion have always been carried on by that one of the two nations whose fleets were in command of the sea.

For if, from 1377 to 1385, with Admiral Jean de Vienne, several descents upon the British Isles could be successfully executed, it must not be forgotten that this was owing to the genius of that great seaman, who first in France was able to understand the exceptional value of dominion over the sea and to conquer it by profiting by the momentary eclipse of the English naval power.

It is thus, thanks to their uncontested superiority upon the sea, that the English were frequently able to make landings upon our coasts, and even to retain guarantees there for so long a time—Calais, Dunkirk, etc.—which it would have been impossible for them to hold without the support of a fleet which was sovereign mistress of the maritime avenues of revictualment and re-enforcement.

It was from the absence of this indispensable condition that all the projects of invasion of England, conceived in the reigns of Louis XIV and particularly of Napoleon, could have no chance of success.

Egypt was virtually lost to France after Aboukir.

WAR ON THE SEA.

In our own days, if Great Britain can continue to regard as a useless luxury the organization of an army whose function it would be to safeguard her territory, it is because she has full consciousness that her formidable fleet constitutes for her the most invulnerable of protections. Quite recently indeed, the Prime Minister, replying to a question in the House of Commons, rejected as a quite impossible hypothesis the invasion of England, so long as the English naval forces dominated the sea.

It may be said, therefore, that a military expedition *beyond seas* cannot be successfully carried out except with the *previous* condition of freedom of the sea.

Thus that which contributes to the strength of England and of Japan, their insular situation, is also their weakness in the case of a war of conquest. And so it was the Japanese navy, above all, that the Russians should have thought of holding in check.

But from 1894 to 1904, that is in ten years, the Russian navy gained twenty-one units, namely: eighteen battleships of a total displacement of 199,800 tons and three armored cruisers altogether of 33,000 tons. And as a matter of form I mention 58,500 tons of so-called protected cruisers, which are not counted as fighting ships.

If a mere comparison of figures were to be made, perhaps the Russian effort could be thought acceptable, since in the same period the Japanese fleet only gained fourteen fighting ships, of a total displacement of 160,000 tons. But so superficial a method of valuation can lead only to gross errors, since it takes account neither of the quality of the fighting units nor of their personnel.

While the Japanese built the four fifteen thousand-ton battleships of *Shikishima* type, which by themselves alone represented a considerable power, and the seven armored cruisers of *Asama* type, to which were added, before the war was declared, the *Nisshin* and *Kasuga*, bought from Ansaldo of Genoa, all similar modern units, constituting a formidable homogeneous force, the Russian Naval General Staff laid down successively a number of far too unlike types, from the *Admiral Oushakoff* to the *Cesarevitch*, no one of which came near to equaling in value the powerful Japanese units, and finally three armored cruisers having very few points in common, the *Rossia*, the *Gromoboi* and the *Bayan*.

In this absence of continuity of ideas, of any fixed principle in the matter of new constructions, in these too numerous trials of

WAR ON THE SEA.

different models, a new proof must be seen of the Russian government's lack of understanding of the greatness of the part which its navy could and ought to play in case of war with Japan.

On the sea, even more than on land, combinations of heterogeneous forces are not conducive to victory, and command of the sea cannot be maintained with a naval museum of samples.

The Russian effort during the period of incubation of the inevitable hostilities will appear still more insufficient when it is remembered that, besides the new requirements of their Asiatic expansion, the Muscovite diplomacy had to take account of their ancient interests in Europe, of their preponderating rôle in the Balkan peninsular, of the jealousies of Germany as well as of England, all causes which imposed upon them a strict obligation to maintain a powerful navy in home waters. The Japanese policy, for its part, on the contrary, had as sole field of operations the seas of the Far East.

If to govern is to foresee, it is therefore quite exact to say that the Empire of the Tsars was badly governed, since it did not comprehend that the constitution of a powerful fleet, which, in the ten years' respite at its disposal, it could easily have formed of eighteen fighting units of the first class, would have been a great economy. This imposing and homogeneous force would have sufficed to calm all the belligerent ardor of Japan, and would thus have prevented the mad squandering of money and of human lives which the war entailed.

The needful effort would have required an addition to the special budget of expansion in Manchuria of an annual supplementary credit of from one hundred to one hundred and twenty millions (francs); that would not have been beyond Russia's means. It represented the premium on insurance that progress towards the East should continue and that an ice-free sea should not be put out of reach. The parsimony with which the Russian General Staff treated its naval force, in its ignorance of the preponderating services which common sense strategy assigned to the navy, can be recognized by another sign.

If, at every period of naval history, fleets have had pressing need to secure "advanced bases," centers for laying up, revictualing, etc., where the ships can go to be repaired, to get new supplies, or even merely to rest, above all during the winter, from the

fatigues of long cruising, never have these "bases of operations" been more indispensable than nowadays.

When the wind was the only moving force, a fleet well provided with food and ammunition could, if need there were, keep the sea for long months, at a pinch even put in to port on a foreign coast. It is thus that our great Suffren, in his immortal campaign of the Indies, remained away from Reunion, his only friendly port, during twenty-two consecutive months. I hasten to recall, furthermore, that he would have had no rest if he had not conquered the advanced base which he lacked, which he accomplished by capturing Trincomalee.

In our time, needs of this kind are infinitely more pressing. Though modern ships of war carry enough food to suffice for the nourishment of their crews for several months, on the other hand they only hold the coal necessary for the maintenance of propulsive power for a few weeks, one may even say a few days. The obligation to return frequently to port for fuel is therefore imperious. Moreover steel hulls in sea water become covered with grass and barnacles; under penalty of seeing the high speeds which are a strategic factor of the first importance greatly reduced, periodic visits to a dock are necessary.

Thus far I have considered only the exigencies of the daily life of fleets. What must there not be added, when one thinks of the needs entailed by bad weather, of the repairs of all sorts necessary to restore to fighting trim the ships composing a naval force which has been in battle, *even if victorious*.

Modern bases of operations, therefore, require considerable supplies of provisions, ammunition, coal, lubricants, spare articles, raw materials, etc., dry docks, repair shops well equipped with tools, etc., all under the safeguard of defences which cannot be too strong, since the question is to guarantee the security of the preparations of naval operations.

Remember that it was much more from the almost complete lack of means of action of this sort than from the individual weakness of his ships, that Admiral Cervera's unfortunate squadron perished at Santiago de Cuba; for his four cruisers would still have been able to play a good part if they had been *active*, if they had been provided with the things most essential to their very life.

What we know to-day of the events of the Russo-Japanese war permits us to believe that, at Port Arthur as well as at Vladivostok,

WAR ON THE SEA.

none of those judicious arrangements which indicate a wise and farsighted preparation for war had been planned and executed.

The damages of the *Cesarevitch*, of the *Retvizan* and of the *Pallada*, in the unexpected Japanese attack which gave the signal for war, could only be repaired by improvised means. This was a demonstration of the poverty of naval resources at Port Arthur. The subsequent events of the war furnished a later occasion to see that Vladivostok was not much better provided.

The characteristic of this war, so far as the Russian side is concerned, is truly then the lack of prevision of the primary part which was to fall to the navy to play. Nothing can be improvised in war, to-day less than ever, and proper preparation for it takes a long time.

It is because of having ignored these essential truths that Russia pays penalty to-day; that great and unfortunate nation had no faith in her navy, she did not understand that by itself it would be the best guarantee of her policy; she pays dearly for that initial error.

"*No colonies without a navy*," said Napoleon on the occasion of the cession of Louisiana. A striking truth, to be constantly borne in mind, and particularly applicable to the case of Manchuria. And this error on Russia's part was so enduring that even after the war had begun she had no perception that from the navy alone could her salvation come.

To the strategical errors of the government are to be added those of the chief command. How really can the strange carelessness which exposed the Russian fleet to the night attack of February 8 be less severely spoken of? It was already too much when, in the full period of political tension, war ships rested each night in careless and complete quietude in the outer harbor of Port Arthur; the continuation, after the breaking off of diplomatic relations, of such dangerous misconduct, which exposed valuable fighting units to the chance of a possibly total destruction, is inexcusable.

A striking comparison enables us to foresee what henceforth are to be the very different methods adopted by the adversaries for the conduct of the war. On the side of the Japanese, whose sailors are brought up on English naval doctrines, there will be the bold and energetic offensive, the sudden attack which disconcerts and demoralizes the enemy, in a word the method of which the applica-

WAR ON THE SEA.

tion has given victory to the great captains of all ages, Alexander, Cæsar, Hannibal, Napoleon, Suffren, Nelson.

In the Russian camp, on the contrary, there will be adopted a timorous defensive, a passive attitude of waiting, a depressing inactivity, and, to say all, the system which has brought upon us Frenchmen our most grievous naval defeats from the battle of Sluys to Aboukir and Trafalgar.

Moreover the choice of Port Arthur as the point of concentration of the Russian naval forces was not a happy one. The hydrographic conditions of that port were hardly suited to the establishment of a principal advanced base or base of strategic operations; the inner harbor too small to shelter a fleet; no safe outer harbor insuring to a squadron at anchor perfect and absolute security; absence of any outer roadstead in which a fleet could form in order of battle under the protection of defensive works; difficulties of organizing the naval defence; possibility of closing the entrance; finally a situation at the end of a long and narrow peninsular, exposing it to attacks from the rear; all these unfavorable conditions were more numerous than should have been necessary logically to compel the commander-in-chief to chose Vladivostok instead of Port Arthur as a base of operations.

Another still more important disadvantage to be mentioned is the eccentric position of the second of these two ports relative to the Sea of Japan, the probable theater of war.

Beyond doubt the ice blockade of the great Siberian port, during the severest months of the winter, made it apparently the inferior, I say apparently, for this fault was attenuated by the presence of the ice breaker *Ermak*; but, on the one hand, this relative immobility would only occur during a short period when the excessive rigor of the climate of necessity interferes with all operations of much scope, and, on the other hand, the blockade by the elements was, during this period, the most efficacious of safeguards against a blockade of a different nature.

Vladivostok moreover offered many advantages which Port Arthur was without: a large fine harbor, numerous exits, facilities for defence, many means of replenishment by railroad, highways, etc., difficulty of investment by land, and finally a position at the very center of the theater of war.

It is not alone in the objectionable choice of the point of concentration of the naval forces that a strategic error on the part of

WAR ON THE SEA.

the Russian commander-in-chief appears ; another is to be found in the very incompleteness of this concentration. The strict obligation to secure the assemblage at a given point of *superior forces*, should have forced upon the admiral the resolution to gather under his flag all the ships present in the Far East. The isolation of the *Varyag* at Chemulpo, there to succumb with glory but to no purpose ; and that of the *Rossia*, the *Gromoboi*, the *Rurik* and the *Bogatyr* at Vladivostok, are not in accord with any military idea. Did the commander-in-chief of the Russian fleet have even one single military idea ? We may well doubt it.

I have thought it useful, before any analysis of the actual events of this war, to set forth the initial errors which from the very beginning inclined the balance of fortune, for, in my opinion, no other method would have so clearly revealed the lessons which pertain to our special line of investigation.

Although we have not yet summed up the philosophy of the general doctrines of military history, the preceding chapters have sufficiently familiarized us with certain fundamental ideas to make me think myself authorized to preface the narrative of events by a critical review of initial conceptions.

The great moral bearing of the facts will be only the better understood.

Nor must we expect to find on the Japanese side, during the whole course of this campaign, the evidence of a profound mastery in naval affairs ; there was far from being any revelation of a man of genius, and it may be said that the striking successes of the Japanese sailors were much more the results of the incapacity of their adversaries than of the special excellence of their own admirals.

But in all justice we must recognize the latters' merit of having always known what they wanted and having pursued it with energy and determination. Thanks to these qualities of the first rank, powerfully aided by a preparation for war which, contrary to that of their enemies, was marvelous in its method and logic, they won the victory.

The example is all the more striking for us, because it affords a new proof of the preponderant influence upon success exercised in our days by patient and methodical preparations in time of peace, as well as of the possibility of winning success without of necessity possessing any *great man*.

WAR ON THE SEA.

THE JAPANESE OFFENSIVE.

The surprise of the night of February 8 finds its justification on the side of the Japanese in their anxiety to destroy, to their own profit, as quickly as possible, the balance of naval forces in the Far East. This result, by assuring to them control of the sea, alone could permit them to disembark troops in Korea with all the conditions of safety which comport with such an operation. Freedom of the sea was therefore, for the Japanese navy, the *principal objective*.

They secured it, in fact, from the first day of hostilities, thanks to their vigorous attack, and this in spite of the relative non-success of that attack, for the Russian fleet was from that moment reduced to five battleships, *Petropavlovsk*, *Sevastopol*, *Peresviet*, *Pobieda*, *Poltava*, and five cruisers, *Bayan*, *Askold*, *Diana*, *Boyarín* and *Novik*, of which the first alone was armored; a condition of undoubted inferiority with regard to the principal Japanese forces, which constituted two squadrons, the first of six battleships and the second of an equal number of armored cruisers.

I have said relative non-success. It is in fact difficult to explain, otherwise than by the inexperience of the personnel of the Japanese destroyers, how a surprise attack, made at night and with a smooth sea, upon a squadron at anchor in an open roadstead, without lookouts, and to such an extent undefended that watch is being kept as in times of peace and the assailants are taken for Russian torpedo-boats, did not give results more decisive and more complete.

But, it may be asked, were not the destroyers of a type too big for the mission confided to them, which required a handiness and manœuvring qualities that are combined to a much higher degree in torpedo-boats? It would be extremely valuable to be informed upon this important point, but exact knowledge of the facts is wanting. All we know is that the ten destroyers which took part in the attack fired twenty torpedoes, only three of which made hits. Taking into account the exceptionally favorable circumstances of the attack, such as cannot reasonably be expected to occur again, this result is poor.

Putting aside the *Cesarevitch*, on account of her special construction and her particular system of protection against torpedoes, the performance of which appears at first sight to be promising, the injuries of the *Retvizan* and especially of the *Pallada*, merely

a protected cruiser, are out of proportion to the explosive charges of the torpedoes which struck them. Judging from the experiments made in France and England, upon caissons representing sections of the hull of modern ships, these two vessels should have sunk.

Precise information is lacking to explain this anomaly. Must it be attributed to the nature of the charge, very probably of melinite, as the beginning of asphyxiation felt by several men on the *Pallada* after the explosion seems to show?

The one certain lesson, incomplete though it be, that we ought to derive from this attack is the very grave influence of the practical experience of the personnel upon the success of such enterprises. They require infinitely more of it, in fact, than any other undertaking whatever that occurs in naval wars.

There appears to have been altogether too little practice with torpedo-boats in most countries; and I do not hesitate to find in this circumstance the explanation of the quite insignificant part played by them, on both sides, in the course of this Russo-Japanese war.

I dwell upon this point; because only a few years ago, at our school for torpedo-boat officers, night firings were very considerably reduced in number, for the single purpose of avoiding losses of torpedoes. This strange conception of preparation for war needs no comment, for such an economy of old exercise-torpedoes may, some day, cost very dear.

On the next day, February 9, the Japanese fleet made its appearance before Port Arthur; it was the logical consequence of the attack of the preceding night and the first effective manifestation of the command of the sea by the Japanese.

Before anything else the latter endeavored to attain this principal objective, and they attained it by coming, on the opening of hostilities, to blockade in their place of refuge the forces of their adversaries. Thus they showed their understanding of the true principles of war, and they gave a second proof of it by the rational composition of their fleet.

That which presented itself before Port Arthur was divided into three main groups, the first composed of six battleships commanded by Admiral Togo, the second of six armored cruisers under the orders of Admiral Kamimura, and the third of five protected cruisers under the flag of Admiral Dewa. It is impossible

not to see in this arrangement a faithful application of the principle of homogeneous forces. We shall see in the course of events that the Japanese respected that principle knowingly, and as rigorously as possible.

THE EVENTS AT CHEMULPO.

The events of February 8 and 9 before Port Arthur were intimately connected with other operations of which Chemulpo was the scene at the same moment. The severe cold, by limiting the number of landing points not blocked by ice, and moreover the need of securing from the beginning of the war the submissive support of Korea and of the Korean government, indicated this port as the initial place of invasion of the first Japanese troops.

On the evening of February 8, the Russian gunboat *Korieits* sailed from Chemulpo to join the fleet at Port Arthur. Just outside she comes upon a flotilla of four Japanese torpedo-boats, the advance guard of a division of cruisers commanded by Admiral Uriu, which, without any provocation, fire their torpedoes at her. One of these torpedoes sinks in its course; the other two miss. This very bad shooting at short range, a real firing exercise against a harmless target, for the *Korieits* had her guns secured for sea, does not give a high idea of the training of the Japanese torpedo-boats; it gives still more weight to the importance already pointed out of having as much actual firing as possible in peace time.

I shall not dwell upon the attack of the *Varyag* by the Japanese division in the Chemulpo passage; that attack is but a secondary incident of the first and really important act of the great military drama of the conquest of command of the sea, of which the two capital scenes are the night and day attack at Port Arthur and the simultaneous disembarkation of the first Japanese troops at Chemulpo under the protection of Admiral Uriu's naval forces. Furthermore, this fight, or more exactly this massacre without glory for the Japanese sailors, is as little instructive as possible for us, since so unequal a struggle as five ships against one caught in a trap, and necessarily overcome under the inexorable law of numbers, could not to any extent furnish matter for profound discussions.

The sole detail of this incident of a nature to call for some consideration would have to do with the regrettable hesitation of the commanders of the foreign war ships in the harbor to remonstrate

WAR ON THE SEA.

against so flagrant a violation of the neutral waters of Korea, a violation which constitutes on the part of the Japanese a real act of brigandage ; but its examination belongs to international law.

There is one fact of primary importance to note ; from the very origin of this war the Japanese fleet had taken upon the coast of Korea a base of naval operations. The real position of this base is not yet very exactly determined ; whether it was at first at a point-situated near Chemulpo, and then, after the melting of the ice, at Hai-ju bay, is of little consequence to us. It is the principle that we have especially to bear in mind, and it is of interest to emphasize the fact that, despite their proximity to the Japanese shores, despite the exceptional facilities for obtaining supplies and resources of all sorts that this proximity assured to them, the Japanese squadrons adopted an advanced base, at the very center of naval operations, the nearest possible to their point of attack, and suitable for covering the landing operations of the Japanese armies on the Korean coast.

The chosen position would, under all circumstances, afford an excellent anchorage, defended against the possible attacks of torpedo-boats by natural obstacles, reefs, shallows, narrow passages, etc.

It is to this base that the Japanese fleet always went to anchor in the intervals of its operations against Port Arthur.

The first very distinct period of these operations extends from February 9 to May 15 ; it is characterized by an effective and undisputed control of the sea by the Japanese navy. They go freely to and fro, and their transports, without the least anxiety in the world, land the Japanese armies upon the Korean and Manchurian shores.

Repeated appearances before closely watched Port Arthur and artillery duels with the sea front batteries of that port have for their object the maintenance of the blockade of the Russian naval forces, and the keeping busy of the defence of the place, much more than attempting to reduce it. These successive attacks coincide, indeed, with the disembarkations of the armies of occupation at Chemulpo and at other points of the coast, and they are intended to protect these disembarkations against any possible offensive action of the forces of Port Arthur. In this respect, their success is complete.

WAR ON THE SEA.

SUBMARINE MINES.

The study of this period is interesting not alone from the foregoing points of view; an event occurs, notable from its frequently repeated consequences even in this relatively short space of time, and forces attention to the important part played by the automatic torpedo, or submarine mine, as a powerful means of destruction, in modern wars.

Employed on both sides, its brutal and blind force strikes blows, so much the more terrible that it is still under little control, against both.

First it is the *Yenisei*, a mine-planting ship, which, after having placed nearly four hundred machines of the sort, explodes one and sinks on February 11; it is a serious matter, for this accident deprives the Russian defence of valuable information as to their exact situations. Moreover, on the next day a violent storm displaces these torpedoes, of which several come to the surface and drift away. Three days later, on February 14, the cruiser *Boyarin* runs upon one of these mines and, receiving a mortal blow, sinks.

In the night of April 12, the Japanese, favored by darkness and steady rain, succeed in their turn in mooring submarine mines on the line of the entrance to Port Arthur, without their action being discovered by the Russians.

On the 13th, the Russian squadron, composed of five battleships and three cruisers, gets under way in the morning; but, finding itself in presence of forces too greatly superior, takes a course to return to its anchorage. It is in this manœuver of retreat that the *Petropavlovsk* encounters one of the Japanese mines, and, after a tremendous explosion, undoubtedly due to the ship's magazines, following that of the mine, sinks in two minutes, carrying down in a glorious death the valliant Admiral Makaroff, a moral loss for the Russian sailors more harmful even than the material losses.

The battleship *Pobieda* also is reached by the explosion by shock of another Japanese mine, which opens in her side a rent ten meters long, extending over four compartments. Till then only the Russians had been tried by mines; the turn of the Japanese was to come.

On May 12 and the following days Admiral Kataoka, with three cruisers and four flotillas of torpedo-boats was supporting off Kerr bay the operations of the army, holding the Russian troops in check by his fire. His torpedo-boats were engaged in clearing the

WAR ON THE SEA.

bay of mines planted by the Russians when, on the 13th, one of these mines exploded and cut in two torpedo-boat No. 48, which immediately sank. On May 14, the cruiser *Miyako* in her turn runs upon another mine and in less than half an hour disappears in the abyss.

Finally on May 15, a grievous day for the Japanese, while cruising off Port Arthur, the battleships *Yashima* and *Hatsuse* strike successively, the first a mine and the second two connected mines. The *Yashima* escapes, very seriously damaged but still able to keep afloat, but the *Hatsuse* goes down in a few minutes.

It is impossible not to be struck by the importance of the part which circumstances gave to engines of this character to play in a period of time of quite brief duration. And the use which may be made of them, in future wars, in closely blockading a naval force in port, in barring a passage, etc., is at once apparent. For this reason it was essential to point out the services rendered by them to one side and the other during the war in the Far East. And it is not without interest to note the frequent and systematic use of the torpedo-boats by the Japanese to clear bays or neighborhoods obstructed by mines. Finally, the laying out of these engines was done, on both sides, by special vessels: the *Yenisei* and the *Amur* for the Russians, the *Koryo Maru* for the Japanese. In all of which there are valuable hints for the future.

THE ATTEMPTS TO BLOCK THE ENTRANCE TO PORT ARTHUR.

During this same period the Japanese made three attempts to bottle up the Russian squadron in Port Arthur. These operations were always carried out in the same way; transports laden with hydraulic cement, and with just enough men to handle them, approached the passage at night, supported by flotillas of torpedo-boats whose function it was to make a diversion; they endeavored to sink themselves in the middle of the channel so as to obstruct it. Either on account of wrong movements, due to the difficulty of exactly marking the position, or because they were distracted by the efforts of the defence—the gun fire, torpedoes, etc.—none of these attempts was crowned with complete and decisive success. Up to May 2 the Japanese had sacrificed in these enterprises not less than seventeen steamships, of displacement ranging from one to three thousand tons, without having succeeded in preventing the Russian squadron from going out.

WAR ON THE SEA.

We may draw various lessons from this practical example ; in the first place, the advantage of establishing principal or secondary bases of operations as far as practicable in ports having more than one entrance ; then the urgent need of as complete as possible an outer defence, assuring the discovery and destruction, at points far removed from the entrances, of structures sent to close them with their wrecks. Whatever may be the difficulties of such an undertaking to the assailants, this vigilance and these ways of acting are indispensable to exclude any possibility of a success of which the consequences would be irreparable.

THE VLADIVOSTOK CRUISERS.

I have taken the date of May 15 as ending one period of the war, because it corresponds to an apparent cessation, or I may better say a momentary hesitation, in the offensive ardor of the Japanese. Thus they give up a fully prepared combined operation against Nieu-Chwang, from which they withdraw their forces ; and thenceforth they adopt Taku-Shan as their point of disembarkation. This modification of the original plan is solely due to the very appreciable naval loss which the Japanese have just experienced, and which, by notably diminishing their strength upon the sea, makes them fear that their superiority thenceforth will be too slight to justify the risk of operations of very great boldness.

This loss of strength has another after effect upon the general plan of naval operations. Till then Admiral Kamimura had had more particularly as mission the establishment, in the Sea of Japan, of a guard intended to keep watch upon and hold in check the Russian division of three armored cruisers.

After May 15, Togo, considering that his superiority upon the principal scene of action is not sufficient, retains part of Kamimura's ships. The repair by the Russians of the battleships *Retvizan*, *Pobieda* and *Cesarevitch* made this a measure of imperious necessity to him. It is true that he weakened a secondary strategic point, but it was to maintain an effective force at the principal point. This incident emphasizes once again the very great importance of the navy's work.

It is this relaxation of the guard which permits Admiral Bezobrazoff to go out from Vladivostok and to execute a raid which takes him to the neighborhood of Yokohama.

From the beginning of the war, the rôle of this Russian division had been a very insignificant one. After a first sortie, effected two

days after the opening of hostilities, in very bad weather, and in the course of which its action was limited to the capture of a Japanese steamer, it had returned to port.

Closely watched by Kamimura's squadron, which appeared several times before the Siberian port, and the numbers and composition of which, five armored cruisers and two protected cruisers at least, established too great a disproportion of forces to permit fighting successfully, the Russian division only risked itself at sea once, on April 25, when it went as far as Gensan. During this cruise of forty-eight hours in the Sea of Japan, they stopped a fine Japanese transport of six thousand tons, the *Kinshu-Maru*, loaded with troops, and sunk her by means of a torpedo.

Favored by a thick fog, they passed undetected within a few miles of Kamimura both going out and returning. This momentary good fortune was but the passing luck of the gambler, which lures him on to the final and irremediable fall.

The relaxation in the Japanese guard about Vladivostok, after their losses before Port Arthur in the month of May, though it gave the Russian naval division relative freedom of movement, did not give to it what it really needed, that is to say a force sufficient to change the course of events.

It is very true that the Russian cruisers profited by this liberty to explore the Korean strait, as well as that of Tsugaru, during the month of June; that they repeated this expedition at the beginning and at the end of the following month, this time giving it a wider range, since they went within sight of Tokio. It is equally true that in the course of this cruise they seized a number of merchant steamships of various displacements, some with and some without troops and war material. I hasten to acknowledge also that the moral effect of this raid upon the Japanese sea coast population was considerable; that the Japanese commerce was for that very reason interfered with to an appreciable extent; that the cost of maritime insurance was raised sensibly; and finally that the money losses which were the natural consequence of these various disturbances were far from being negligible, since they were estimated at fifteen million yen for a period of a few days.

I am the more ready to establish these facts because they give greater force to the conclusion which we are bound to come to that all these captures of ships, non-belligerents or carriers of contraband of war, all these raids seemingly so bold but really in-

WAR ON THE SEA.

offensive, had, in the final analysis, absolutely no influence upon the course of events and the military solution of the problem. It is the more interesting to note this because as a matter of fact the Russians did nothing else than apply the method of war known by the entirely inappropriate term *guerre de course*, and which in our days is merely the use of war ships in the pursuit and capture of merchant ships.

Upon this point it is needful to be precise; I do not pretend, in my previous remark, to condemn a system of action, but rather the exclusive use of that system. The total strength of a country is made up of the aggregate of all the forces which that country disposes of; military forces first in importance, then industrial, commercial, financial forces, etc. If then, as it is reasonable to believe, the objective of war, its very *raison d'être*, must be to paralyze the adverse forces, it is logical and legitimate to attack all those forces, without neglecting a single one of them, but only on the express condition of understanding that their totality is the only real power to be destroyed.

Because they were without effect upon the Japanese military forces, the division of Bezobrazoff could have multiplied its raids and have captured still more merchant ships without thereby advancing by a single day the end of the war, without even changing to the very smallest degree its conclusion. Much more, for the same reason, was it marked for certain destruction, after long or short delay, on account of its lack of strength and the obligation which was imposed thereby to shun combat, instead of seeking it as the sole efficient means of destroying the balance to its own advantage.

Although the Russian division on July 1, suddenly finding itself in sight of Kamimura's squadron, in the Korean strait, at nightfall, was able to escape from that superior force by extinguishing its lights and using full speed, the evil day was, could only be, postponed. To retreat, always to retreat, has never been considered an advisable procedure in a duel, for it sooner or later happens that a material obstacle, or some other unforeseen incident, puts the one who retreats at the mercy of the attacking sword of his adversary.

Success in war cannot be, never in any period can have been, obtained by evading battle. History teaches us, on the contrary, that the destiny of fleeing squadrons has always been the same—to be destroyed.

WAR ON THE SEA.

And I do not fear being taxed with tiresome repetition when I recall once again this expression of Tourville: "*From the moment that the two fleets are in sight, so as to be able to make each other out, it is impossible to avoid a fight.*" Certain principles, after the lapse of two centuries, have lost nothing of their truth. And so, on August 14, at daylight, the three Russian cruisers, *Rossia*, *Gromoboi* and *Rurik*, finding themselves thirty miles to the north of the strait of Korea, perceived all at once, about eight miles to the north-northwest, Kamimura's division of four armored cruisers. Without further delay, the Russian ships stood away to the northeast, making every effort to attain their highest speed.

For us, who ought to seek to see beyond mere facts, trying to extract from them their philosophy, it is worth observing, as a new proof of the moral weakness of the Russians, this instinctive feeling which dictates to them flight as the sole means of safety. Doubtless they were under the disadvantage of inferiority of numbers, three ships against four, but a military force is not measured solely by the absolute number of its units; it is further necessary that the unities be of the same kind in order that such a measure may be exact.

And in this case each of the Russian units taken separately was sensibly superior to those of Kamimura. It is true that a little later the protected cruiser *Naniwa* came to reinforce the Japanese; but in spite of everything, under the control of an energetic and resolute chief, the Russian division commanded by Admiral Yessen could have accepted the gage of battle without too great a disadvantage. But it was necessary to fight, and it is truly extraordinary to observe, in the course of history, the surprising number of men, individually brave beyond dispute, who in the practice of the military art have a profound and instinctive dread of *battle*.

	Russia.	Gromoboi.	Rurik.
Displacement	13,675 tons	13,220 tons	10,933 tons
Maximum speed	21 knots	20 knots	18.8 knots ¹

Anything was better, in any case, than flight, in which the lack of homogeneousness of the Russian division must have evil consequences. By a comparison of the characteristics above set forth of the three cruisers, it is very quickly seen that the actual speed of the *Rurik*, a relatively old ship, being sensibly less than that of

¹ The *Rurik's* trials going back to 1892, we may be sure that her actual maximum speed was much lower than that given.

WAR ON THE SEA.

the other two, became of necessity the real speed of the division if the latter remained intact, in which case it could not escape the pursuit and was forced to the necessity of engaging in battle under conditions more disadvantageous, consequently, than if battle had been energetically sought for.

If, on the contrary, in the excitement of their flight, the elementary principle that in union alone is strength was forgotten, each cruiser would attain her highest speed and the fatal result would be the isolation of the slowest ship.

That is what happened to the *Rurik*, which had to support almost the whole fire of the Japanese concentrated upon her, and this so much the more because an injury to the steering gear, caused by a shell almost at the beginning of the engagement, prevented her manœuvring. At that very moment, the *Rossia* and *Gromoboi* afforded the best of all proofs of what they could have accomplished if their commanders had been imbued with the true conceptions of war. In order to disengage the unfortunate ship, they went to her assistance to enable her to make repairs, and succeeded in holding the Japanese cruisers in check by a steady fire which did serious damage to the *Idzumo*, the flagship. But, as if this fortuitous effort had used up their reserve strength, blind instinct urged the Russians to retake their mad course towards Vladivostok the instant that the *Rurik* signalled that her damage was repaired.

This time, nothing could stop the *Rossia* and *Gromoboi* in their flight, and to use a familiar but imaginative naval expression, the *Rurik* was soon "left."

While the two leaders supported the fire of the four Japanese armored cruisers, the *Rurik*, several miles astern, had to oppose the *Naniwa* and two other protected cruisers which had joined her. The unhappy ship, left to her own resources, much weakened by the fire of her opponents, soon had her guns put out of action one after another and her commander killed, and finally she is sunk by opening the sea valves.

And yet there was a good chance still for the Russian division, since Kamimura, after five hours' fighting at six thousand meters range, abandoning the pursuit of the *Rossia* and *Gromoboi*, suddenly stood away for the Korean coast, doubtless because his armored cruisers were themselves too much distressed and especially because they were out of ammunition. By turning back again to

WAR ON THE SEA.

the aid of the *Rurik*, these two ships would very probably have delivered her from her relatively feeble adversaries and saved her from the final catastrophe.

They limited themselves to stopping to repair their greater damages and then, without disturbing themselves, steered for Vladivostok. The results given by their weak and indifferent behavior justify counting upon the very different one which an energetic and vigorous offensive would have given. So, in analyzing this incident of the war, I do not think that I am deceived in believing that on this occasion the Russians had success within their grasp. A *man* was wanting to them, and the confidence of success that comes from the perception of a wise preparation for war.

This sortie of the Vladivostok division, effected on August 12 and terminated so tragically on the 14th, had had for its special object to facilitate the escape to that Siberian port of the naval forces still stationed at Port Arthur.

THE SORTIE OF AUGUST 10.

The period from May 15 to August 10 is characterized by the slow but continuous investment of the stronghold of Port Arthur by the Japanese armies, the progressive shortening of the iron circle which closes in upon it until the Russian war ships, hidden in the harbor, have left only a choice of two alternatives, either passively to let themselves be destroyed at anchor by the fire of the siege artillery, or to seek to break the blockade and gain Vladivostok.

During these three months what was left of the Russian fleet remained completely inactive or very nearly so. The Japanese fleet could appear frequently on the coast, engage in artillery passages with the batteries of the defence, support from the rear the offensive operations of the troops all along the shore; nothing could succeed in arousing this do-nothing fleet from its torpor. It is almost certain, and this would explain such incredible inactivity, that several improvised batteries on the sea front were armed with guns taken from the ships. If this be true, it is one of many proofs of the persistence of the strategical error committed by the Russians; if anything had to be sacrificed, it surely was not the naval force, the most valuable of all, but much rather the purely nominal base which had no *raison d'être* except for the existence of the fleet.

WAR ON THE SEA.

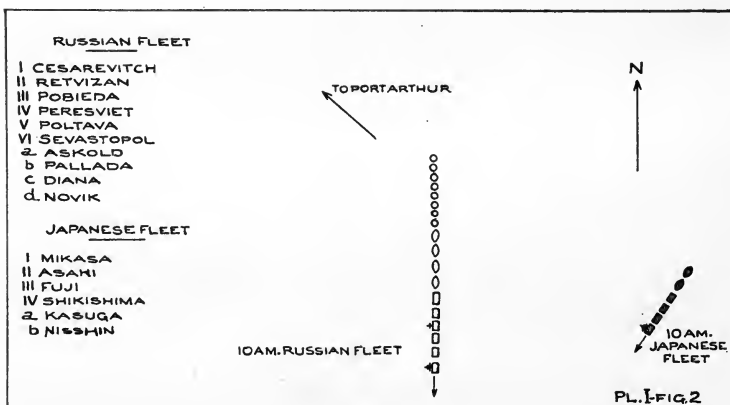
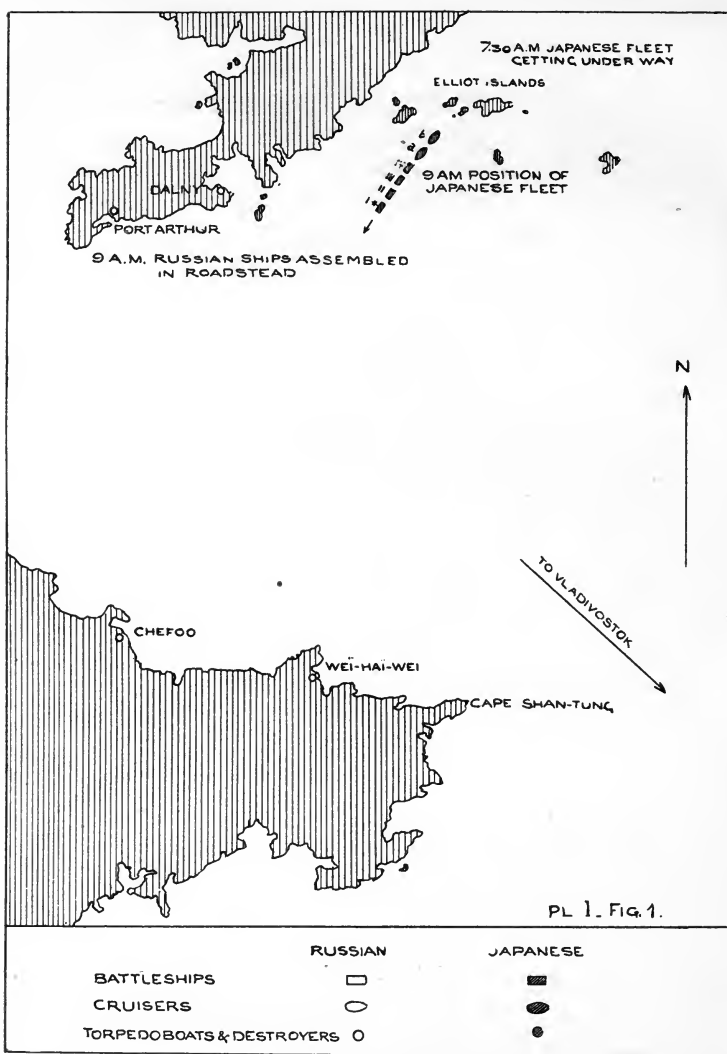
Once only, on June 23, this squadron gives a sign of life: it gets under way with Admiral Vithoft in command; it is made up of six battleships, *Cesarevitch*, *Peresviet*, *Pobieda*, *Poltava*, *Retvizan*, *Sevastopol*, of the armored cruiser *Bayan*, of the protected cruisers *Askold*, *Diana*, *Pallada*, *Novik*, and of ten torpedo-boat destroyers. At three o'clock in the afternoon, it stands out to seaward; towards five o'clock the Japanese squadron is in sight, formed of four battleships, seven armored cruisers, ten protected cruisers and thirty torpedo-boats. The Russian admiral changes course, then turns completely round and heads for Port Arthur, pursued by Admiral Togo's forces, which, however, do not get near enough to open fire; towards nine o'clock in the evening he anchors in the outer roadstead and on the following morning takes his ships back into the harbor. All the narratives, in relating this incident, agree in making clear the disastrous effect of this futile sortie upon the morale of the Russians.

We may well ask what Vithoft could really have hoped to gain by this sortie. He evidently had no intention of fighting, since the mere sight of the Japanese fleet dictated to him the fatal resolution to return to anchor; neither is it any more credible that he intended to try to reach Vladivostok, for the hour of the departure would have been, in that case, very badly chosen. The first principles of the profession of seaman and of blockade runner show that the most favorable conditions for success in that sort of enterprise are to be found all together at night. It was only by taking advantage of the night, directing the bulk of his forces, which were very far from being negligible, against one wing of the blockading line, while the torpedo boats made a diversion at another point, that he could have any chance of getting through.

It is quite likely that the Russian admiral really did not have any very clear objective. Of all the conditions of war this is surely the most fatal, for better even a poor plan than no plan at all. Another bad feature, and not a small one, of this unfortunate sortie was that it convinced the Japanese sailors that, with adversaries as timid as the Russian sailors, anything could be dared.

This conviction was already half of success, as it had been for Nelson before Villeneuve's sortie from Cadiz.

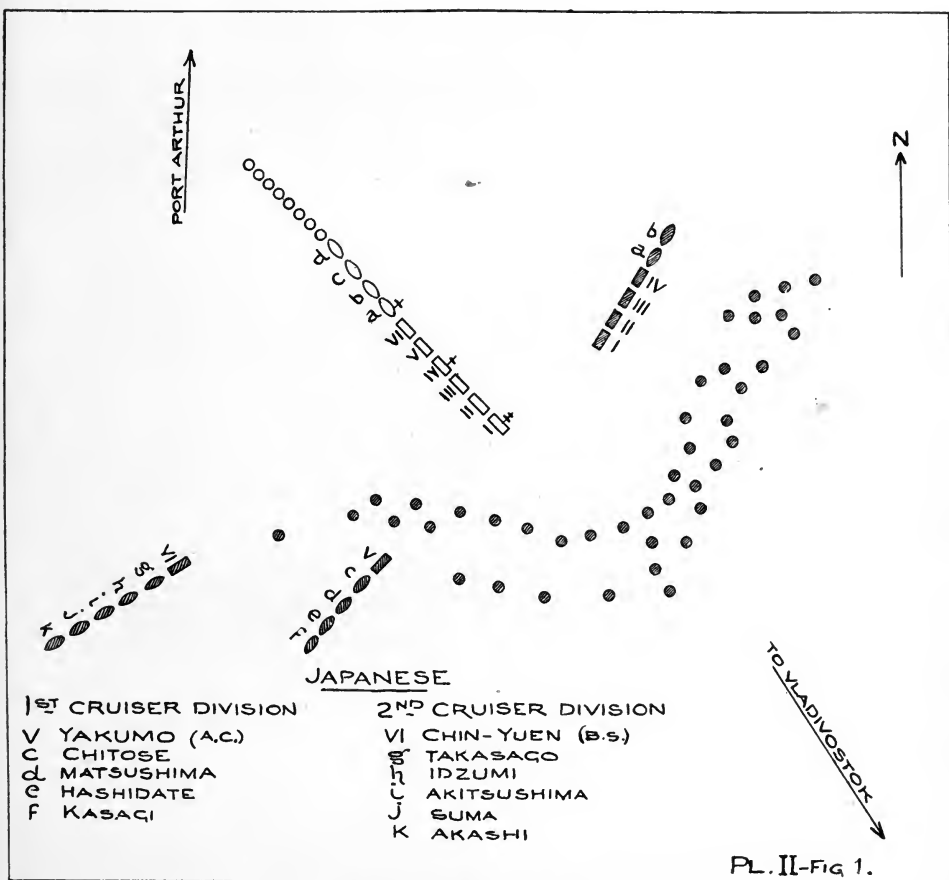
On August 10, the Russian squadron was finally obliged to leave its resting place, under penalty of being destroyed by the Japanese



WAR ON THE SEA.

fire opened from Wolf hill, to which they could not effectively reply.

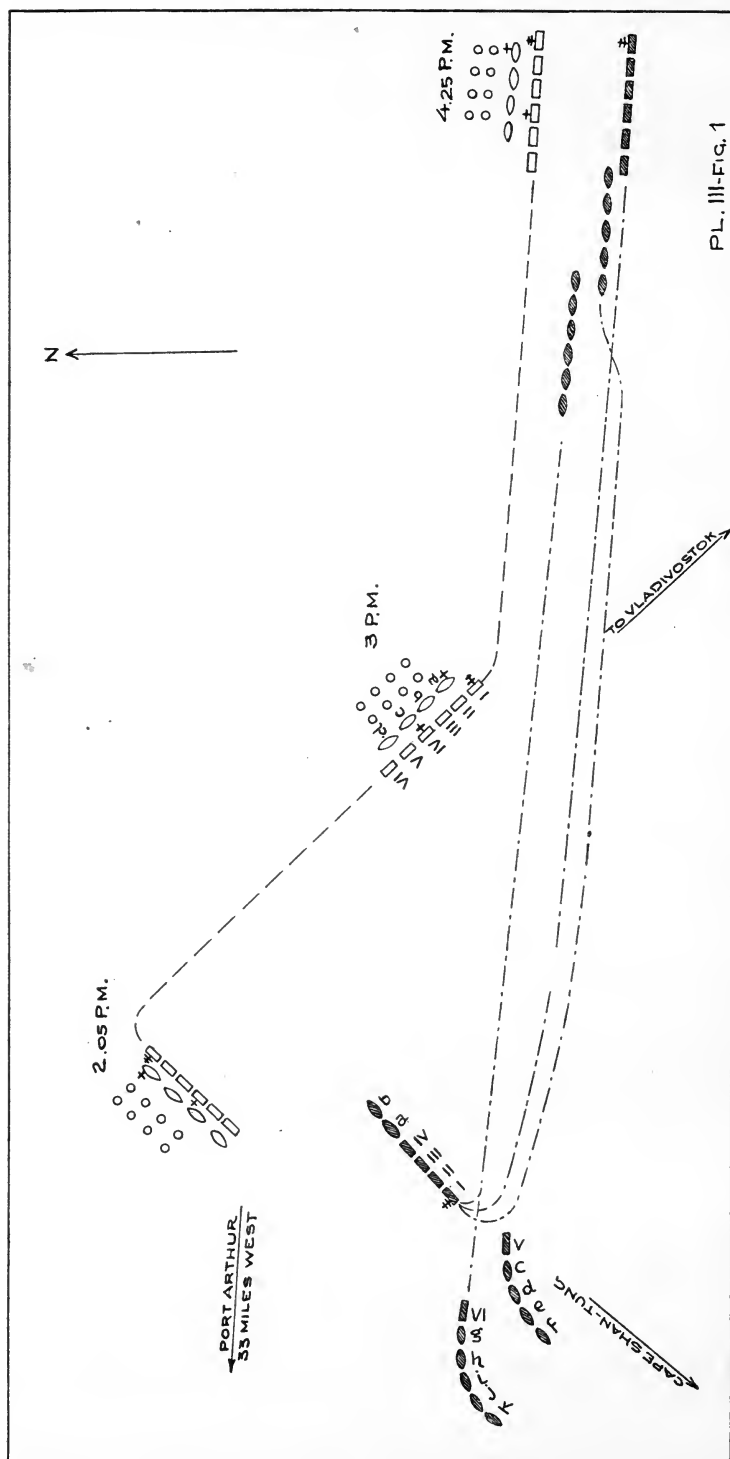
The six battleships got under way at eight in the morning, followed by the three cruisers *Askold*, *Pallada* and *Diana*, preceded by the *Novik* conveying seven¹ destroyers. At nine o'clock they



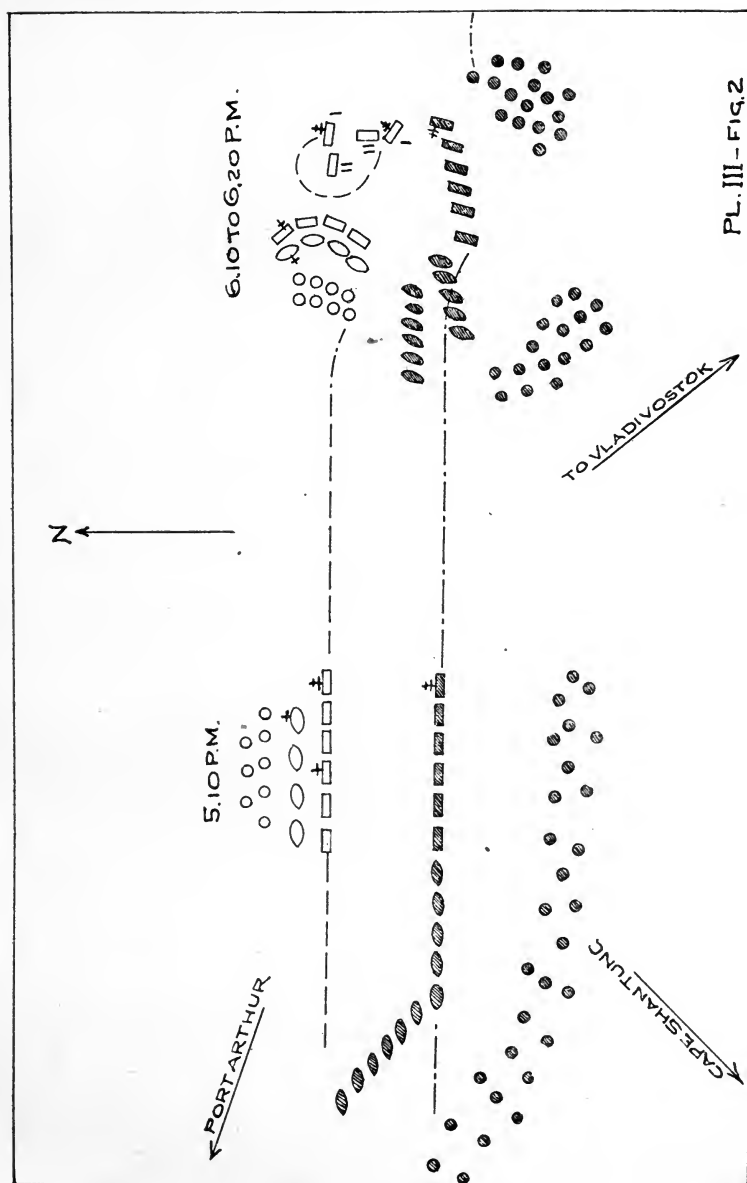
POSITION AT 11.30 A. M.

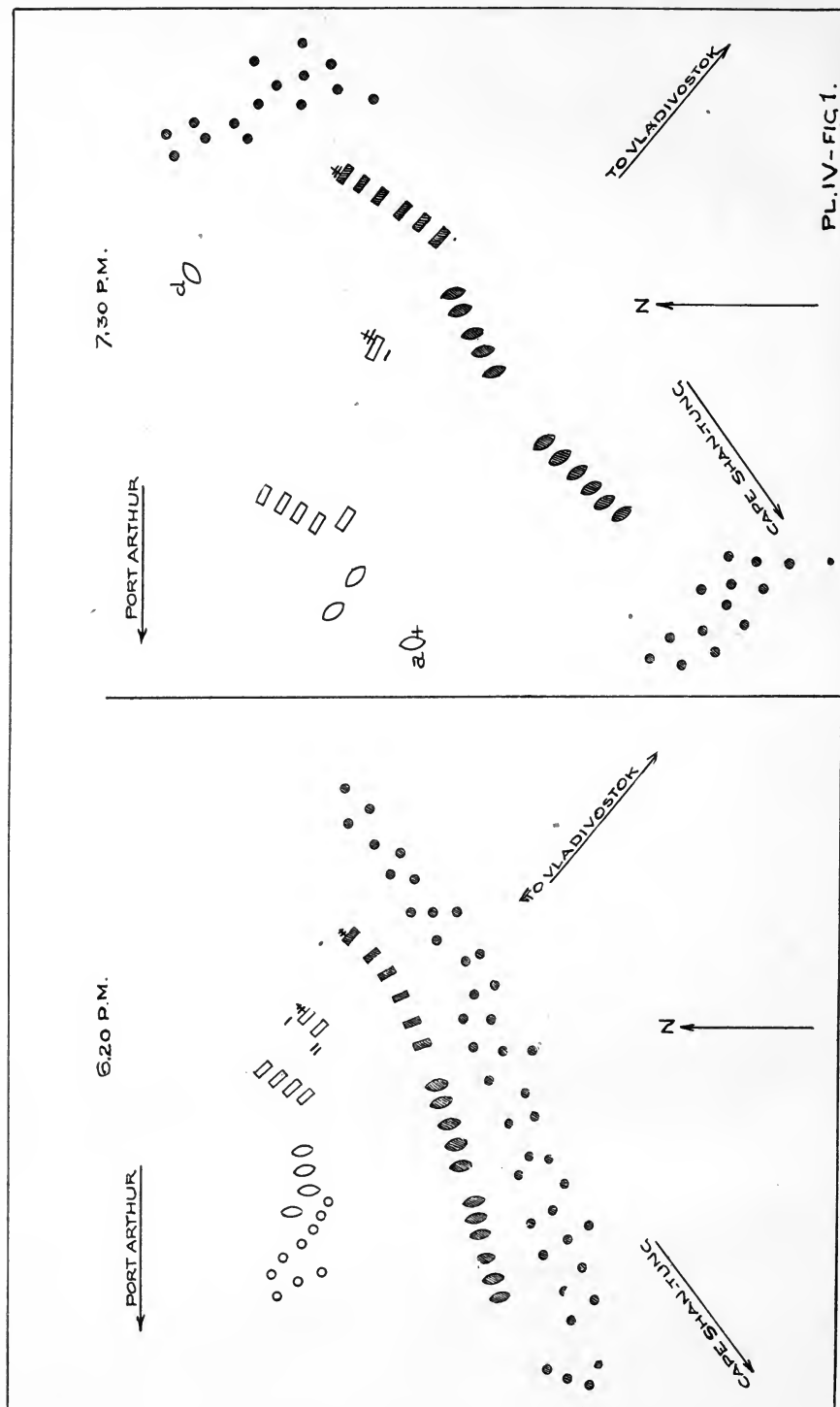
headed for Shantung Promontory at a speed of thirteen knots (Plate I). Almost immediately the first Japanese squadron is made out to port; it consists of the *Mikasa*, *Shikishima*, *Asahi* and *Fuji*, battleships, and the *Kasuga* and *Nisshin*, armored cruis-

¹ The illustrations show eight.



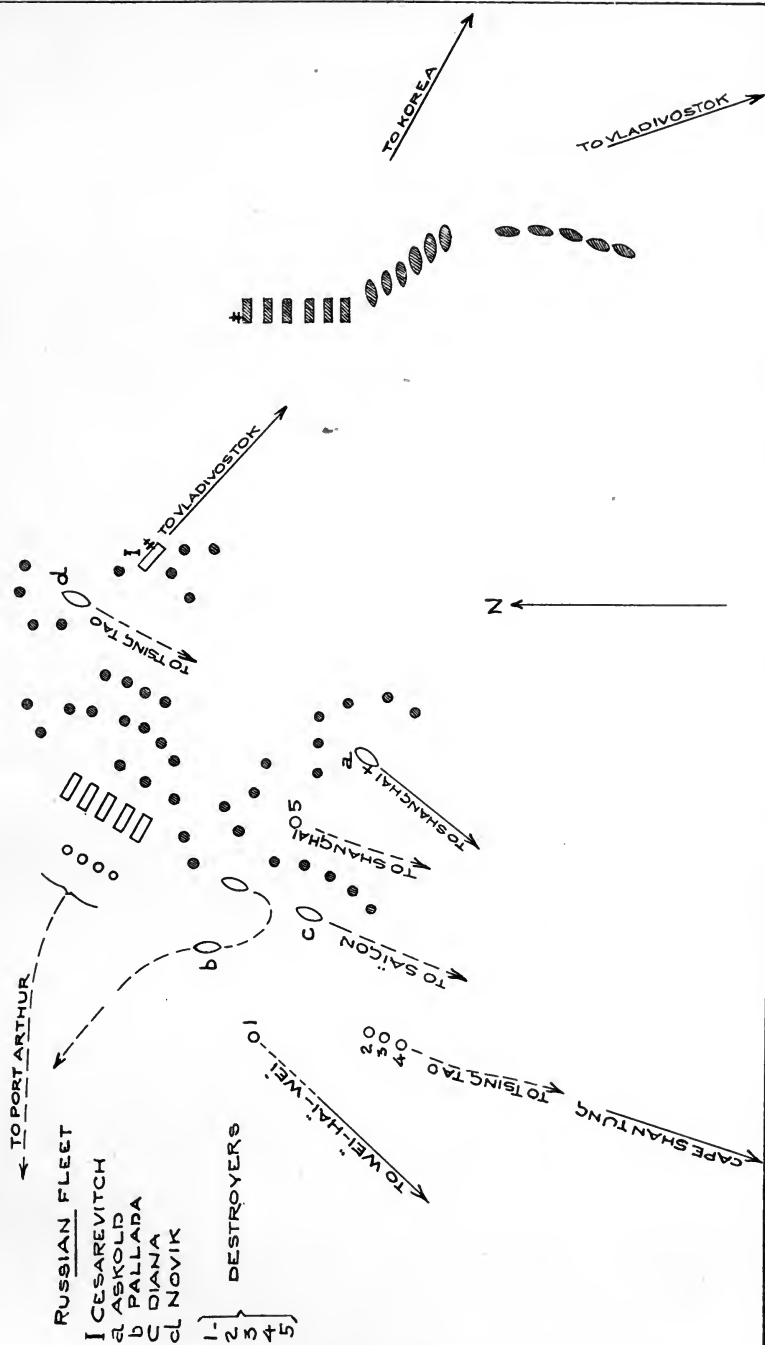
PL. III-FIG. 1





PL. IV - FIG. 1.

THE SCATTERING.



WAR ON THE SEA.

ers, together with a considerable number of destroyers or torpedo-boats, about forty altogether; then a little later the second squadron is seen on the starboard quarter. These forces are very far apart; the first, composed of four battleships and two armored cruisers, to the east; the second, composed of the *Yakumo* and three protected cruisers to the west-southwest.

The Japanese fleet steers on a slightly converging course and gains in the chase. The Russian squadron continues in the same direction, which is that leading to Vladivostok, until noon; then it turns to the northeast, very probably intimidated by the thick screen of hostile torpedo-boats which have placed themselves across its path. These torpedo-boats, it is said, visibly scattered over the surface of the sea buoys, kegs and other things which could from a distance be taken for mines. The morale of the Russians evidently could not stand against this terrifying appearance (Plate II, Fig. 1).

At one o'clock an artillery contest, *at extreme range*, is begun with Togo's squadron on the starboard hand, but there is no great damage done. At five in the evening, the two lines were still seventy-five hundred meters apart, and were exchanging shots; at half past six a shell struck the *Cesarevitch* and killed Admiral Vit-hoft, while at the same instant control of the ship was lost through an injury done to her helm (Plate III).

This serious damage, attributed somewhat too hastily in the first advices to a projectile having struck the rudder *below the water line*, was the result of a 12-inch shell exploding in the sighting holes of the conning tower and destroying the steering apparatus as well as all the means of communicating orders (Plate IV, Fig. 1).

A first version attributed to the other battleships a vigorous attack upon the enemy with a view to getting about the *Cesarevitch* and protecting her while she repaired her damages; but the night was coming on, and Admiral Ukhtomsky, who had assumed command, judging his ships too weakened to be able to hope to force their way through and reach Vladivostok, resolved to return to Port Arthur and made signal to follow his movements. He thus rallied five battleships that he was able to lead back and, on the following morning, take into the port which he had just left; but he did not take back there his honor as a leader; that was lost forever in this affair (Plate IV, Fig. 2).

WAR ON THE SEA.

The analysis of this sortie of August 10 is suggestive in more than one respect. In the first place it illustrates that instinctive repugnance to fighting which throughout the past has always characterized timid nations and which is to-day the undeniable trait of the Russian navy. That Russian squadron of six battle-ships was a force of considerable strength, sufficiently homogeneous and powerful to compensate by these qualities for its numerical inferiority relative to a fleet which, excepting the *Mikasa*, *Shikishima*, *Asahi* and *Fuji*, comprised only ships of incomparably less military value. This composition, for the first time very much mixed, of the Japanese fleet, can only be explained by their considerable losses in the operations off the Liau-Tung peninsular.

Yet not for a single instant in the course of that interminable artillery duel in cruising order, which lasted hardly less than eight hours, did the Russian commander-in-chief have the appreciation of his real strength. It never even occurred to him that perhaps there was something better to do than run away, that by falling resolutely with his main body upon one of the Japanese squadrons, he would have a chance of annihilating it and of opening for himself a passage.

When they went out from Port Arthur, the Russian naval forces had the rare good luck to find the two Japanese squadrons separated by a distance great enough to offer a fine opportunity. If, instead of changing course to the northeast at noon, the Russian commander-in-chief had boldly assumed the offensive by bearing down upon Togo's squadron to the eastward, there is no doubt that he could have offered fight under conditions of equality of forces sufficiently satisfactory to give him hopes of success. If the Japanese admiral had accepted the challenge, and everything indicates that on that day he would have submitted to rather than sought close action, the losses experienced by his ships would have had a decisive influence upon the remainder of the campaign. If, on the contrary, the Japanese admiral had refused the fight by standing away, this manœuvre would have favored the Russians' object.

Therefore such an energetic attitude could not have failed to be of profit to them in all ways. But it would have required the will to fight and take risks, and they never even suspected that that could be of any use; even more, far from seizing the opportunity offered by the separation of the Japanese forces, they did every-

thing to facilitate the latter's concentration and thus to give to them the superiority of forces which they lacked.

How many truly disconcerting events in war prove the imperious necessity of a doctrine!

In speaking of the commander-in-chief, I refer to Vithoft in particular no more than to Ukhtomsky; the personality is of no importance, it is the system which it represents and which is named indecision or want of will.

And this time again it may be asked: *Why, if the Russian squadron wished to evade battle and merely to break through the blockade, why, in that case, did it go out in the daytime?*

From the result obtained while the *Cesarevitch*, stopped, repaired her damages, we can judge what an energetic and bold chief with his five other battleships would have secured. This is not an unwarranted hypothesis, for it is impossible not to characterize Togo's action as also very weak. Numerous incidents of the affair prove it. Not only did he fail, during an entire day, to secure a decisive result against a manifestly demoralized enemy, but when the latter was beaten and his forces dispersed, he did not succeed in barring a passage to them.

While the five battleships are going to Port Arthur, the *Cesarevitch*, almost wrecked and only able to make four knots speed, proceeds at that tortoise gait to Kiao-Tcheou, and arrives there on the following evening without having been troubled otherwise than by a torpedo-boat attack just as she left the field of battle.

According to a more recent version, the Russian battleships did not turn back at all to help the *Cesarevitch*; but the latter, taking a great sheer on account of her helm damage, ran into the midst of the enemy's line, throwing them into disorder. This account, much more in accord with the Russian demoralization, and which I regard as probable until time permits the truth to be known, does not invalidate the preceding argument; far otherwise, indeed.

The light division, commanded by Admiral Reitzenstein, had energetically forced a passage through the Japanese squadron, and that, characteristically, not in an endeavor to preserve its forces for their country but to flee, always to flee. The *Askold* succeeded in reaching Wusung, the *Diana* got as far as Saigon, and finally the *Novik*, excepting the *Retvizan* the only example of valor in the whole affair, after having stopped less than twenty-four hours

at Kiao-Tcheou, proceeded to Saghalien where, after a combat with a Japanese cruiser, her commander sunk her.

More proof than is necessary may be found there to show how indecisive and vacillating the Japanese pursuit itself was. With a Suffren at its head the Russian squadron might have hoped everything, and I make this remark to note in passing how great the importance of moral worth is among all the various forces whose close union constitutes the military strength of a nation.

It is not to be doubted that the feebleness of Togo's pursuit was an error of doctrine. It has been claimed as his excuse that the Japanese admiral, on his own initiative or under orders from his government, wished to be sparing of his ships in prevision of the arrival of the Second Pacific Squadron. The error would be a great one, for the opportunity of destroying the forces, even partial, of the enemy, is always too valuable to be allowed to escape. He would much more surely have secured the final preponderance of force by the destruction of the Port Arthur squadron, even at the cost of damages to his own ships, than by letting it escape almost intact.

Though this error of principle did not have great consequences, not the less it was committed; none can foresee the future, and Togo forgot, on August 10, that Suffren and Nelson never postponed to a later day what they could do then and there.

Just as in the case of June 23, the causes of this inconceivable cowardice on the part of the Russians must be sought in a foolish, unreflecting fear of the attacks of torpedo-boats which, as night came on, spread through all their ships illusion and fright, hypnotizing all their faculties upon a single object, flight. That alone can explain why both the attempts to break through the blockade were made in full day.

And yet there was no occasion to dread so much the attacks of those little vessels. I do not say this, you may be sure, on the mere ground of personal opinion. I should have no right to do so here, where I am under strict obligation not to advance any proposition which is not supported by practical examples readily to be found.

At the moment of the breaking up of the Russian squadron the light division had been attacked by the Japanese torpedo-boats; four of them fired, each a single torpedo, at the *Askold* unsuccessful-

fully, and one of the four was sunk by the *Askold's* gunfire. This attack was not renewed, and the torpedo-boats disappeared.

The greater part of the flotilla had joined in the pursuit of the five Russian battleships fleeing to Port Arthur. During the night these ships were the object of repeated attacks in which the Japanese torpedo-boats fired not less than sixty torpedoes *without any result*.

Finally, in spite of the reduced speed which made her a very easy prey for her adversaries, the *Cesarevitch*, in leaving the field of battle, withdrew unharmed from an attack by another group of torpedo-boats which fired ineffectively a dozen torpedoes.

These far from brilliant results justify, I believe, what I have already said in regard to the insignificant part played by torpedo-boats in the Russo-Japanese war. If it were not for certain more encouraging facts of previous wars, and particularly if one did not know to what a degree, in this special branch of the naval personnel even more than any other, patient preparation and training in time of peace influence results in time of war, it would be legitimate to doubt the value of the instrument. Here again the conditions were such that none better could be desired.

In regard to the principle itself of the sortie of August 10, it can be said that it was perfectly legitimate, on condition that its object was battle and not flight. By so acting, and we have seen that the conditions were favorable, the Russian squadron of Port Arthur would have prepared the way for the Second Pacific Squadron much better than by gaining Vladivostok without fighting. The ends of war are met by seeking the enemy and not by running away from him. The formal orders of the Emperor, if it be true that such had been given, would not have sufficed to fetter the initiative of a true military leader conscious of his responsibilities.

However that may be, the return of the Russian battle fleet to Port Arthur consummated definitely the ruin of the last hope of saving that fleet; it buried itself living in its tomb, for some months later the voluntary destruction of its units, before the surrender of the place, was but a mere formality. It really died, as a moral force even more than as a material force, the day of its return to port. We shall speak of it no more.

WAR ON THE SEA.

THE SECOND PACIFIC SQUADRON.

While these events were happening in the Far East, Russia was preparing in her European arsenals a new naval effort to regain naval supremacy. A naval force, which later was called the Second Pacific Squadron, armed in the Baltic ports with the Far East as its destination.

Further on we shall have to study in detail the operations of this fleet, but it seems to me useful, in conformity with the method of analysis thus far employed, to make a preliminary examination of the motives which dictated sending it and above all the directing ideas and intentions.

To tell the truth, I am very sure that these motives were purely sentimental, and that at the origin of this measure, so important in its consequences, there was not any seriously developed strategic plan. The long delays in the preparation of this naval force, the indolence in the labors of arming its ships, the indecision betrayed by the announcements, as numerous as false, of its constantly postponed departure, all, even to accidents caused by ignorance or by malice, denotes a situation from which every military conception is absent.

These half-hearted preparations give the impression of a decision taken much rather to afford a sham moral satisfaction to the national self-esteem than to carry out a logical and deliberate plan of war.

And surely there was opportunity, even at that moment, for a strategic combination of large scope, capable of restoring victory to the Russian banners. But for that it would have been necessary to renounce the delusion of that long ribbon of steel, the Manchurian railroad, and to shake off the dream of a constant communication, more theoretical than practical, afforded by that iron way with the immense, inexhaustible resources of the Empire.

By the middle of May, this railroad could still only carry eight hundred men a day. This figure reached about fifteen hundred at the beginning of June and two thousand at the end of that month, but it fell back to eighteen hundred at the beginning of November.

At the end of January, 1905, the Russian army still comprised only three hundred thousand men *at the most*. The battle of Mukden was fought with this force, about two-thirds that of the Japanese.

Above all it would have been necessary to understand how much

the celebrated expression of the "Kaiser," "*The future is upon the sea*" was applicable to the situation.

Let a Russian fleet, even after the unfortunate sortie of August 10, make its appearance in the Far Eastern waters, in sufficient force to take away naval supremacy from the Japanese, and the whole course of events would be reversed. The mere evocation of this possibility immediately makes all its consequences appear. They were first the immediate rupture of the communications of the Japanese forces of invasion with their home base, the impossibility of their receiving new re-enforcements or fresh troops, the suppression of regular arrivals of supplies, food as well as munitions. To sum it all up, loss of command of the sea must be, for the Japanese, the sudden shutting off of the reservoir which generously fed the Japanese military effort by supplying it with life and energy.

The certain result would have been to force the Japanese armies of occupation to a precipitate retreat, a worse one than that of 1812, for Napoleon and the Grand Army at least were not cut off from their base of operations.

The prospect was good enough to justify the necessary effort on Russia's part; there only was safety for her. This effort was quite possible, moreover, at least so far as material was concerned, for by calling upon all the naval resources still available in her home ports there were enough elements to make up a very strong fleet, notably superior, at any rate, to that which the Japanese could still put in line.

It would be easy to draw up a comparative table in which the units, distributed in as homogeneous squadrons as possible, would give an idea of the greatness of the effort permitted by Russia's still remaining resources, and of the probable power of resistance of their adversaries. But this is not necessary; a glance over the lists of the two fleets is enough. Under the leadership of a great chief the game would still have been a good one; and here I am almost compelled to stop short; in my desire to present, in the very spirit of the principles of naval strategy, an example which was a true practical lesson, I was about to lose sight of the fact that all this available material was good for nothing without a personnel capable of bringing out its value, that these ships represented only a virtual energy, if they lacked men able to put life into them, that finally, had they been ten times as numerous, the Russians would

still have been beaten because they did not have to any extent the most essential of all the elements that make up military strength—moral force.

These just reflections nevertheless take nothing away from the preceding argument. It is not permitted to make war lightly, and in the case which we are considering either it was necessary to send to the Far East a naval force capable *beyond any doubt* of gaining command of the sea, or not to do anything at all. All war plans can be defended excepting half measures. The Rozhdestvensky expedition was only a half measure; it was for that very reason impotent even before it set out.

It will be noted that in the preceding reference to the available Russian forces I have taken account of the ships stationed in the Black Sea, while the Second Pacific Squadron did not include any of them. It would seem, therefore, at first sight that my argument, resting upon a feeble support, since the Russian Government did not believe it possible to utilize these resources, would have at most the value of a theoretical criticism. Such is not the case, and although the subject is apparently one outside our field of investigation, I shall discuss this objection because it raises an interesting question of political strategy.

Forgetting this maxim of Napoleon: "*When you wish to fight a battle, assemble ALL YOUR FORCES, do not neglect any, one battalion sometimes decides the fate of a day,*" a doctrine wonderfully applicable to naval war, the government of the Russian Empire did not dare to utilize its important forces of the Black Sea, and, acting thus, it allowed itself to be intimidated by a simple written document, thus giving to the world another example of its hopeless feebleness.

My reference is to the treaty of Paris, and at once there is felt such a disproportion of cause and effect, between the restrictions put down on a piece of paper by diplomats assembled about a green table and the forced inactivity of an important military force necessary to the safety of a great nation—that simple common sense refuses to accept it.

It would have been difficult, moreover, to make common opinion understand that the clauses agreed to in 1856, at the end of a general European war, could be applicable to war between two belligerent nations one of which had no recognized existence when the treaty was signed.

WAR ON THE SEA.

Furthermore, the preamble of the treaty of Paris reads thus: "*Their Majesties the Emperor of the French, the Queen of the United Kingdom of Great Britain and Ireland, the Emperor of all the Russias, the King of Sardinia and the Emperor of the Turks, animated by the desire to put an end to the calamities of the war, and wishing to provide against the return of the complications which have given rise to it, have resolved to agree with his Majesty the Emperor of Austria, upon conditions for the re-establishment and maintenance of the peace by assuring, through efficacious and reciprocal guarantees, THE INDEPENDENCE OF THE TURKISH EMPIRE.*"

The object of the treaty is wholly contained in the last underlined words, and there was no other.

It would be necessary to possess great mental obliquity, or the inexhaustible faculty of discussion of a shrewd diplomat, to see in this agreement anything but the single care to safeguard the integrity of Turkey and thereby to maintain the European balance of power. How then could it have been held that the bonds placed upon Russia by the contracting powers to assure this single object could not be cut in case of conflict with Japan, nonexistent in 1856 and in any case not having, far or near, any interest in the Oriental question!

Article 7 of the treaty further states: "*Their Majesties (the contracting powers) agree, each on his own part, to respect the independence and territorial integrity of the Turkish Empire, guaranteeing in common the strict observance of this agreement, and they will regard, in consequence, any act of a nature to violate it as a question of general interest.*"

Any other intention than respect for the integrity of the Turkish Empire being evidently omitted from these written instruments, it would have been necessary to demonstrate that the departure of the Russian naval forces from the Black Sea threatened the security of the Sultan in order to make them applicable to the Russo-Japanese war, the mere supposition of which would have seemed to the plenipotentiaries of 1856 the wildest of dreams.

Such a demonstration would have been the more difficult, because the notable weakening of the Russian navy in the waters of the Black Sea would, on the contrary, admirably satisfy the spirit of the treaty.

The fundamental principle of the treaty failing, an argument

WAR ON THE SEA.

has frequently been based upon its article II, relative to the neutrality of the Black Sea. "*The Black Sea is made neutral: open to the merchant marine of all nations, its waters and its ports are, formally and forever, interdicted to war ships either of the adjoining powers or of any other power.*"

But the stipulations of this part of the protocol of 1856 remain inoperative to-day from the single fact that there is a Russian squadron of the Black Sea.

There is the less room for doubt in regard to this particular question because, by a special agreement signed after the treaty, Russia and Turkey made a mutual solemn engagement to each maintain in the Black Sea only "*six steam vessels of fifty meters waterline length, of a displacement of eight hundred tons at the most, and four light vessels, steam or sail, of a displacement not to exceed two hundred tons each.*"

It is quite curious to note that these little vessels would be represented to-day by torpedo-boat destroyers; this remark emphasizes the strained construction of the treaty, and the bitter irony of the *eternal* (!!) engagements entered into by diplomats.

A last argument remained to those who, under an affirmation of respect for treaties, really mask their incurable fear of action; it relates to the act annexed to the treaty of Paris, by which the signatory powers of the London Convention of 1841 reciprocally agreed to respect the ancient rule of the closure of straits to foreign warships.

But the text of this act contains only a single declaration of principle on the Sultan's part, which the other powers agree to respect, but the observance of which belongs to him alone to enforce. We may well believe in this matter that the Porte would have viewed with pleasure a squadron's definite departure which would have freed it from a permanent threat in its immediate neighborhood and would have put everything in conformity with the spirit as well as the letter of the treaty of Paris.

All the reasons called upon to justify the inaction of the Black Sea Squadron are therefore bad. There is much more to be said on this subject, but it would exceed the limit I have set for myself. It is sufficient to have made it clear that once more the new plan, upon which depended the whole effort to win the victory, was not inspired by any strategic idea. To conclude, there is one single and only cause why unhappy Russia must inevitably have been

beaten ; neither before nor during this disastrous war has she ever known what it was to *prepare* her operations. Finally and above all, neither her diplomacy, nor her strategy, governmental, military and naval, nor her tactics in the theater of war, have known how, or wished, to dare.

This long digression will not seem useless, for it will tend to a better understanding of the reason for the complete failure of the Second Pacific Squadron.

The study of this squadron's operations comprises two absolutely distinct phases : a purely maritime expedition and an act of war. The first, certainly interesting, gave better promise for the second than was borne out.

The task imposed upon Admiral Rozhdestvensky was really a hard one. To lead an imposing fleet from the Baltic Sea to the Far East, without other resources than those obtained wholly by way of the sea, in the absence of advanced bases, of well provisioned stopping places on the route, appeared to the sailors of all countries a more than difficult, almost impossible, enterprise, and many were convinced that he would fail completely.

The success is entirely due to the indomitable energy of the leader of the Russian fleet, for all the information gathered relating to this voyage agrees in attributing the fortunate completion of so long a cruise, with completely demoralized crews, solely to his tenacity of purpose and iron will. It is regrettable that this man did not have the military sense as well developed as the seaman's sense.

The study of the arrangements to be made, with a view to overcoming the considerable difficulties of all sorts to be met with in the course of so extraordinary a journey as this one, is too far removed from my chosen subject. I shall be satisfied here, after the foregoing statement of the results obtained by a leader's moral force, even under quite unfavorable circumstances, with formulating some reflections on the subject of the Hull incident.

All of its details are known, and, to perceive the exceptional qualities of coolness and judgment necessary to the making of a great naval chief, the entire report of the international commission must be read.

For ourselves, who are not bound to the same reservations of indulgence and of diplomacy as the members of that commission, we can very well say that the presence of Japanese vessels on the

WAR ON THE SEA.

Dogger Bank, during the night of the Russian squadron's passage, was more than doubtful. The single cause which provoked the Russians' fire against the inoffensive and peaceable trawlers is the same as that which made the sortie of August 10 abortive; it is a measureless fear, akin to madness, of the torpedo-boat, of the *phantom torpedo-boat*, which assumes, to the anxious eyes of the Russian sailors, the most extraordinary shapes. The special details in the case of the *Kamtchatka*, which exhibit this vessel delayed in rear of the squadron, seeing torpedo-boats everywhere, to the extent of opening fire upon every vessel she met, are a particularly good proof.

Thus, as soon as this affair, unique of its kind, became known, the value of the military force of a squadron in which indications of such a moral depression were shown could already be doubted.

THE BATTLE OF TSUSHIMA.

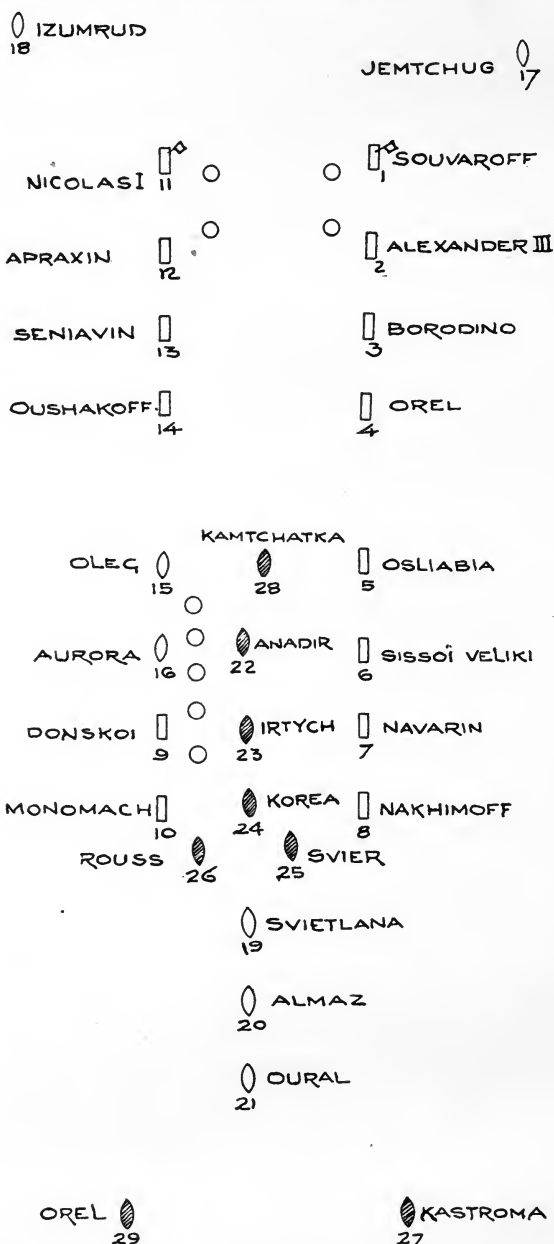
On May 27, at five o'clock in the morning, the Second Pacific Squadron was sighted by the Japanese scouts off the Eastern passage of the Korean Strait, towards which it was directing its course.

Admiral Togo, informed by wireless, immediately got under way from his base and steered for the same point with all his forces. Thenceforth the encounter was inevitable.

But the inclinations were far from the same on both sides. In the Japanese fleet they went eagerly to the battle, on the Russian side they submitted to it. Rozhdestvensky's objective was so evidently and so exclusively *to get to Vladivostok at any cost*, that he had not arranged for any battle formation even then when contact with the Japanese scouts should have convinced him of the certainty of an approaching attack. He advanced towards the enemy in the same order, in columns, which he had prescribed for cruising, the right column made up of the *Rozhdestvensky* and *Folker-sham* divisions, the left column of Nebogatoff's coast defence ships and Enquist's cruisers, and the convoy protected by these cruisers following behind the squadron (Fig. 1).

Before entering the strait, the commander-in-chief seemed to have become aware of the disadvantage of his formation in the event of an attack, for he formed single column by placing his own ahead of the left column (Fig. 2). But almost immediately afterwards he displayed to all an irresolution which augured ill by

CRUISING FORMATION OF THE RUSSIAN FLEET
UP TO NOON, MAY 27.



ARMORED SHIPS		DISTANCE BETWEEN THE TWO COLUMNS	KNOTS Q5
CRUISERS		"	" SHIPS OF A DIVISION Q2
AUXILIARIES		"	" DIVISIONS Q4
DESTROYERS			

FIG. I.

THE FIGHTING SHIPS FORM SINGLE COLUMN.
12.30 P.M.



ARMORED SHIPS
CRUISERS
AUXILIARIES
DESTROYERS

FIG. 2.

WAR ON THE SEA.

again displacing the first division of his column to the right, so that the double column formation was reconstituted.

No formation could be more unfortunate; for when the Japanese naval forces, debouching by the north of Tsushima, came into contact with the Russian fleet, it was the left column, much the

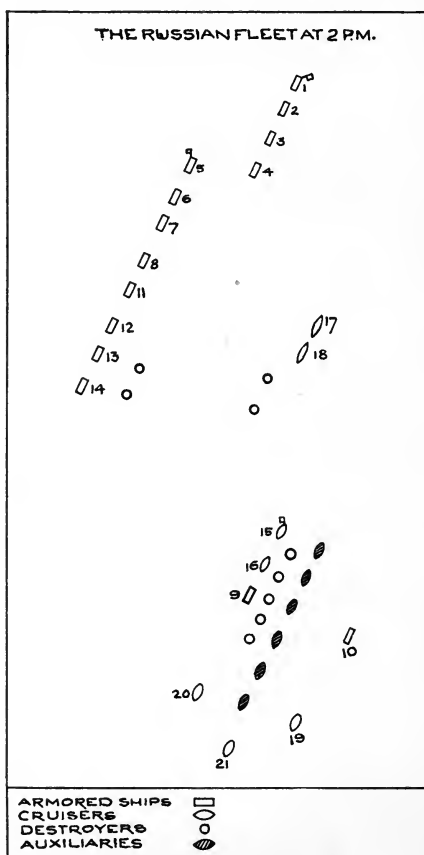


FIG. 3.

weaker of the two, that they could first attack, without the more powerful battleships of the right column, whose fire was interfered with by the interposition of the other, being able to reply energetically to the fire of the Japanese guns. And moreover, the battle once engaged, it would be very difficult to change so unmanageable a formation.

WAR ON THE SEA.

Quite otherwise was the Japanese order. Their fleet, divided into three *homogeneous* groups, of battleships, armored cruisers and protected cruisers, following the movements of the commander-in-chief, but each of them under the effective direction of its squadron commander, exhibited as much flexibility, by the development of three independent columns, as the Russians showed want of it in the manœuvres of their compact formation. Finally, to complete the wholly unfavorable dispositions of the Russians, the sun's position, in the direction of the Japanese fleet, prevented their making out accurately its movements, formation, and distance.

At the moment when the battle is about to open, the situation of the two squadrons is as follows :

The Russians in two columns ; to the right, the *Souvaroff*, *Alexander III*, *Borodino* and *Orel* ; to left, the *Oслиabia*, *Sissoi-Veliki*, *Navarin*, *Nakhimoff*, *Nicolas I*, *Admiral Apraxin*, *Admiral Senia-vin* and *Admiral Oushakoff* ; the cruisers *Jemtchug* and *Isumrud* to the right of the two columns ; astern, quite far off, the *Oleg*, *Dmitri-Donskoi* and *Vladimir-Monomach*, protecting the transports. The speed is from eleven to twelve knots (Fig. 3).

On the side of the Japanese fleet, the first and second squadrons in a single column, at first standing to the southwest as if to pass on a parallel course to the port of the Russian squadron, suddenly at 2.05 p. m. turn by head of column to the east, at a speed of 15 knots. The third squadron steers to attack the convoy from the rear.

At 2.15 the Japanese fired their first shots, though the Russians, on account of their excessive nervousness, had then been firing at them for some minutes at extreme range. At 2.45, that is at the end of a half hour, the fate of the battle could be considered to be definitely determined. In the artillery duel which took place between the two squadrons, at a distance always between fifty-five hundred and twenty-five hundred meters, the *Oслиabia*, at the head of the left column, had suffered greatly from the intensity of the fire concentrated upon her ; completely disabled, and having lost her commander, on account of her position as leader she threw into disorder the ships which were following her.

The relative positions of the two naval forces at 2.30 p. m. (Fig. 4) clearly shows the critical situation of the Russians.

WAR ON THE SEA.

The *Souvaroff* and *Alexander III* are on fire, the coast defence armorclads have scattered; there is no longer any order in the Russian fleet, which no effort thenceforth can save.

From this moment till the end of the day the battle will continue with alternating periods of relaxation and of renewed attacks, but

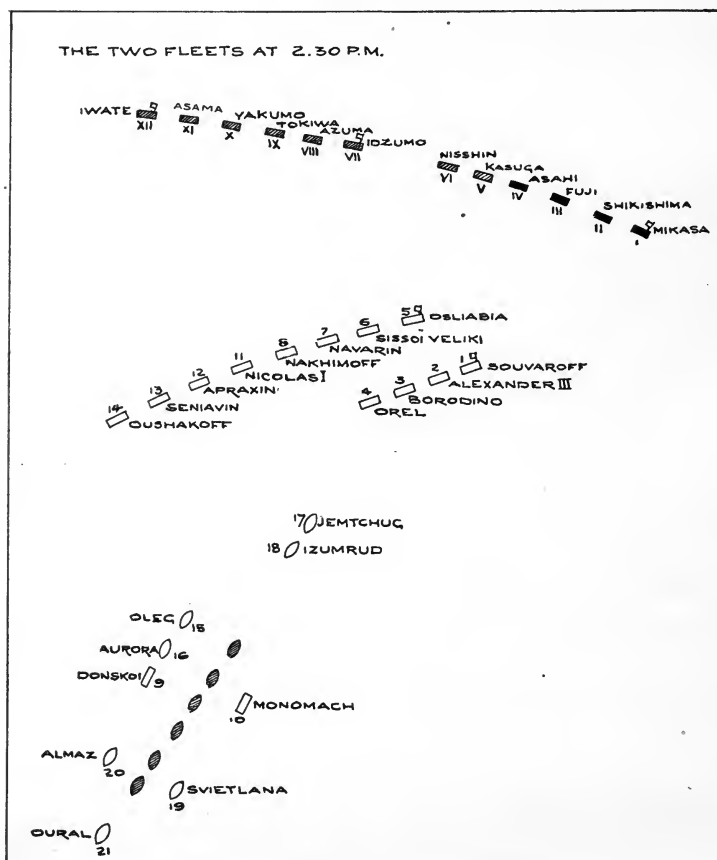


FIG. 4.

the mortal wound has been given. The Japanese keep up a speed of 14 to 15 knots, that of the Russians being 11 to 12; they follow a gradually changing course, seeking to get ahead of the Russian squadron. The latter follows this movement in a sort of passive resignation, changing its course correspondingly in the same direction. It irresistibly makes one think of the frightened gesture of

a child who tries to ward off, with arm bent above his head, his mother's punishment. The evocation of this tragic scene is frightfully sad. The Russians' torpor is such that the protected cruisers as well as the convoy, sticking obstinately to the tail of the column, follow all its movements with disconcerting tenacity, even undergoing the attack of the Japanese protected cruiser squadron through holding their position with a precision worthy of praise anywhere else than in battle.

At three o'clock the movement to get across its head of column has proceeded so far that the Russian squadron fears being caught

ATTEMPT OF THE RUSSIANS TO ESCAPE TO THE NORTHWARD

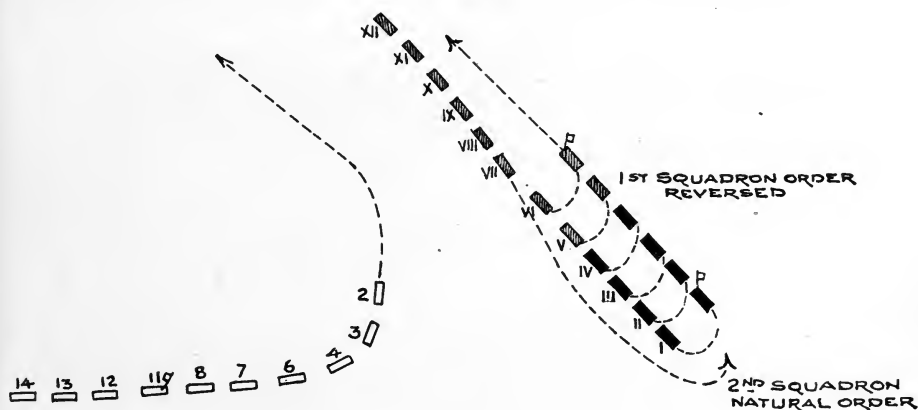


FIG. 5.

between two fires; it turns sharply to the north, in order to endeavor to escape by passing around the rear of the Japanese column. The latter performs a right about movement, in a particularly interesting way from the point of view of battle tactics, and finds itself again parallel with the Russian forces, upon which it once more gains, endeavoring to get in front and bar the way (Fig. 5).

The Russian's repeat their manœuvre, this time turning to the east, at 3.45, and the Japanese immediately make a right about movement in the same manner as before (Fig. 6).

At 7.30 in the evening, after a momentary disappearance of the Russians in the fog and a renewal of the engagement, the destruction of the Second Pacific Squadron is almost consummated; Ad-

WAR ON THE SEA.

miral Togo orders the firing to cease. The *Oslibia* has sunk; the *Souvaroff*, a complete wreck, has met the same fate, having been finished by a torpedo from a destroyer; the *Borodino* has blown up; finally the *Alexander III* has capsized, as have also several other less important armored ships. (The sketch gives an exact representation of the battle.)

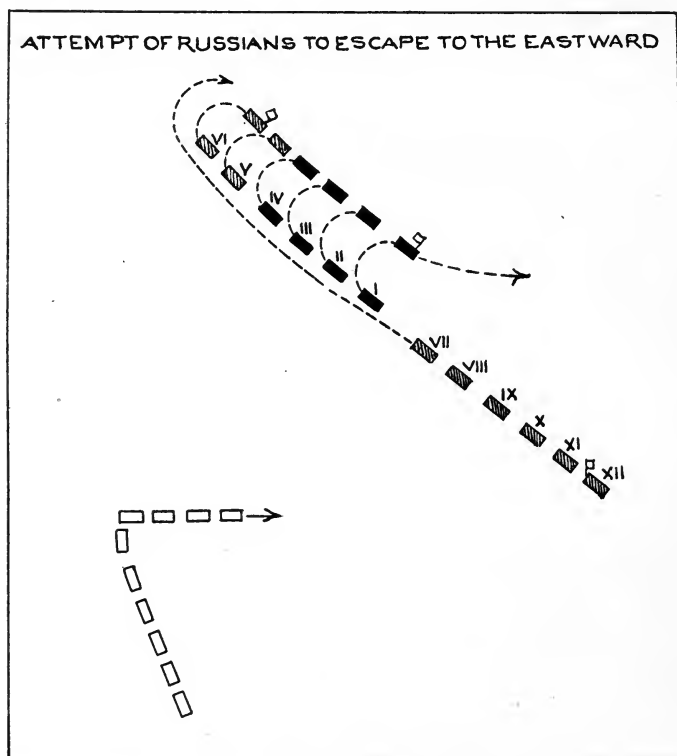
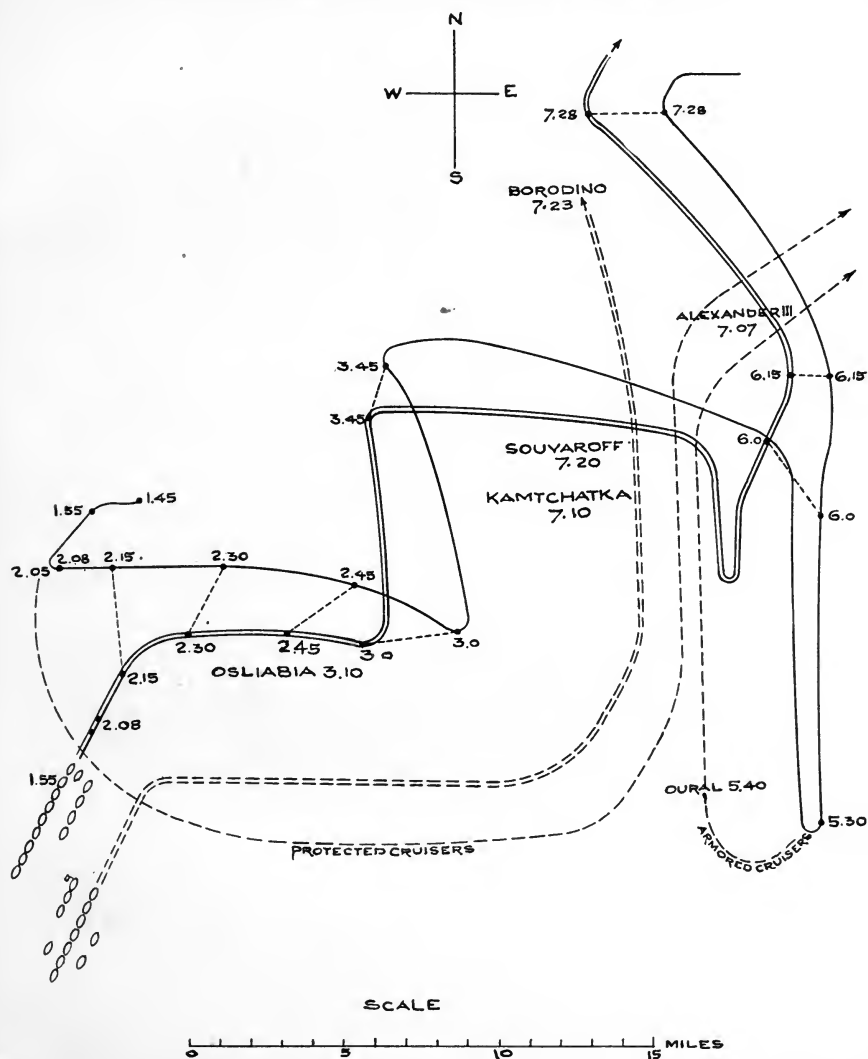


FIG. 6.

In putting an end to the action, Admiral Togo orders the flotillas to attack during the night. During the whole day, in fact, the torpedo-boats have played no part on account of the weather conditions, a strong breeze from the west and a heavy sea, which prevented their leaving the shelter of the coast. At night, the wind having fallen, they were able to put to sea in spite of a quite heavy swell. Their attacks lasted all night, but a study of them would have no great interest for us, since they were directed

SKETCH PLAN OF THE BATTLE OF TSUSHIMA



TRACK OF JAPANESE ARMORED SHIPS

" " RUSSIAN " "

" " JAPANESE CRUISERS

" " RUSSIAN " "

AND AUXILIARIES.

—————
 =====
 - - - - -
 =====

WAR ON THE SEA.

against fighting units already mortally wounded and which they merely finished.

The following day, in the morning, the Japanese cruisers regained touch with the coast defence ships of Nebogatoff's division, which surrendered at the first shot.

Thus was completed the destruction of the Second Pacific Squadron, and this time there was a final end to the Russian naval power in the Far East.

I have described only in broad outlines this battle of Tsushima, which has already made floods of ink to flow and will continue to do so for a long time yet: this has seemed to me to be sufficient. I do not believe, in fact, that all the wonderful things are to be found in this battle that people have wished, with a little too much imagination, to see in it. Some, with the enthusiasm of poets, have wished to establish a likeness between Trafalgar and Tsushima, to compare Togo with Nelson; that, in my opinion, is doing too much honor to the Japanese admiral.

A very lively imagination would be needed to compare the enveloping manœuvre of the two Japanese armored squadrons, using their superior speed, to the wedge formed by Nelson's and Collingwood's squadrons at Trafalgar and intended to break through the center of the French-Spanish fleet. The reality is more simple. The Japanese commander-in-chief, discarding his timidity of August 10, this time advanced boldly to battle, and profited greatly by his boldness. He did it, moreover, without complicated manœuvres, without learned evolutions, in simple column.

One important fact dominates throughout this battle of Tsushima, and that is the artillery combat at long range. Better still than Punta-Agamos or the Yalu, it afforded proof that henceforth the gun is to be the sovereign arbiter of the fate of naval battles.

Furthermore, on this memorable day, May 27, 1905, which will be a notable date in naval history, the advantage derived from the development of modern rapid fire guns and smokeless powder was to bring about a result in accord with the immemorial and natural tendency of men to increase their fighting distances. I say that this tendency is natural; an artillery duel is, in fact, an eminently unstable state of equilibrium. Just as soon as the balance begins to turn in favor of one side, and a single lucky shot may sometimes be enough for that, this advantage rapidly increases at least as much by reason of the continuous weakening of the moral

WAR ON THE SEA.

forces of the adversary as by the material work of destruction which influences them.

It is important then, in the highest degree, to acquire *as soon as possible* that superiority of fire which demoralizes the hostile personnel by striking down everything round about it, and takes from it all strength to resist.

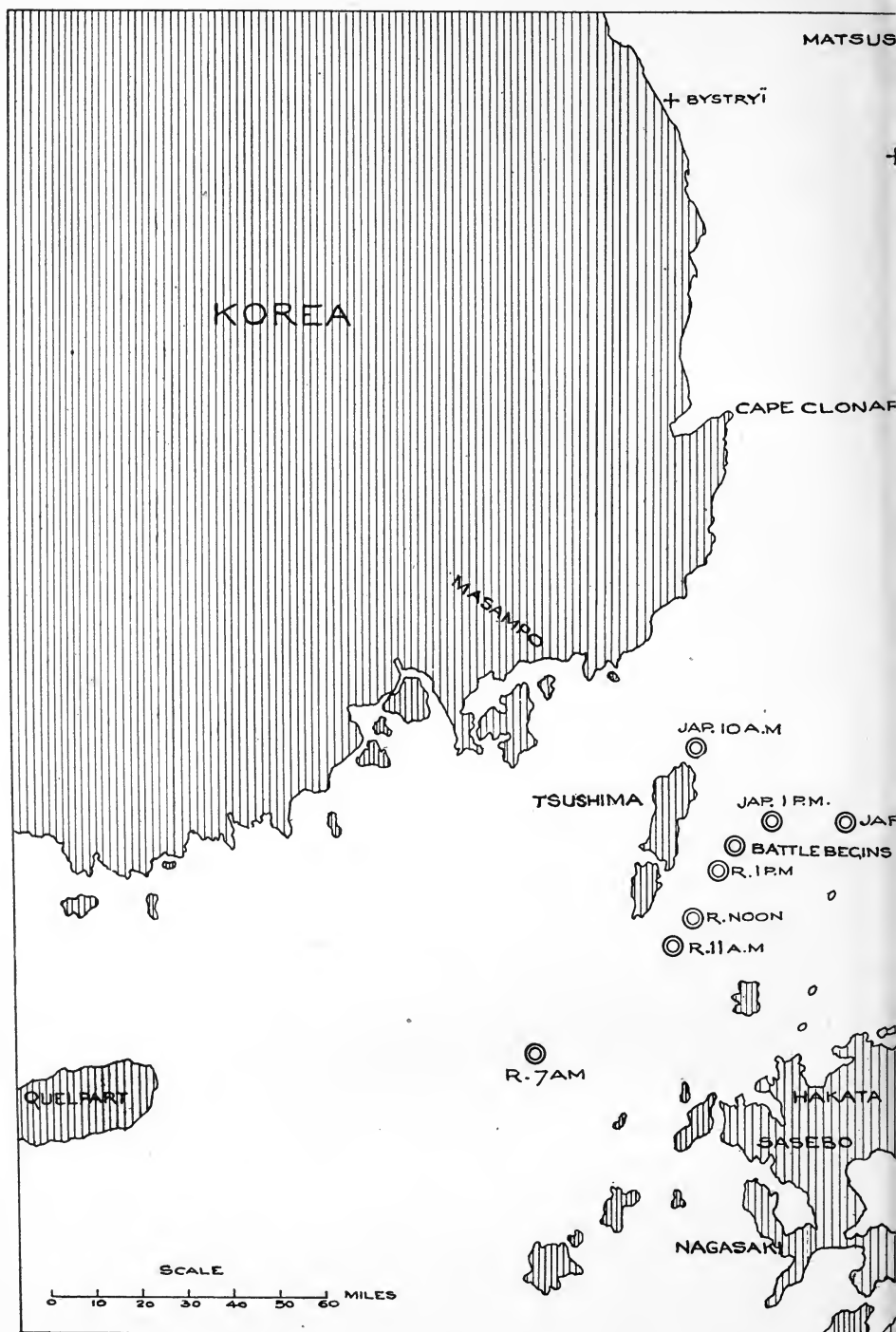
This conclusion is so unquestionable that since the battle of Tsushima an irresistible development, previously advocated in France, forces all navies towards the adoption of calibers of more and more power and of firing exercises at great range.

If a comparison must be made, it would be quite exact to affirm that, after the lapse of a century, the same errors have brought about the same disasters; that there is a striking analogy between the strategical or tactical ideas of Villeneuve and those of Rozhestvensky.

The two beaten leaders had, to the same degree, that inconceivable blindness which made them see their principal objective in the mission they had to accomplish; in the case of the Russian admiral, this preoccupation betrayed itself by an immense error whose consequences had a large part in the disaster of Tsushima. Fearing to lack coal with which to reach Vladivostok, he had so encumbered his ships with fuel that they were overloaded to the amount of fifteen hundred tons. Their narrow armor belts were therefore partially submerged, and this explains the capsizing as soon as breaches were made in the side above the armored deck. Finally, the presence of this fuel favored the development of the many fires which occurred on the Russian ships. Is it to be believed that if Rozhestvensky's mind had been fixed for a single instant upon the possibility of a battle, he would have put his ships in such a condition?

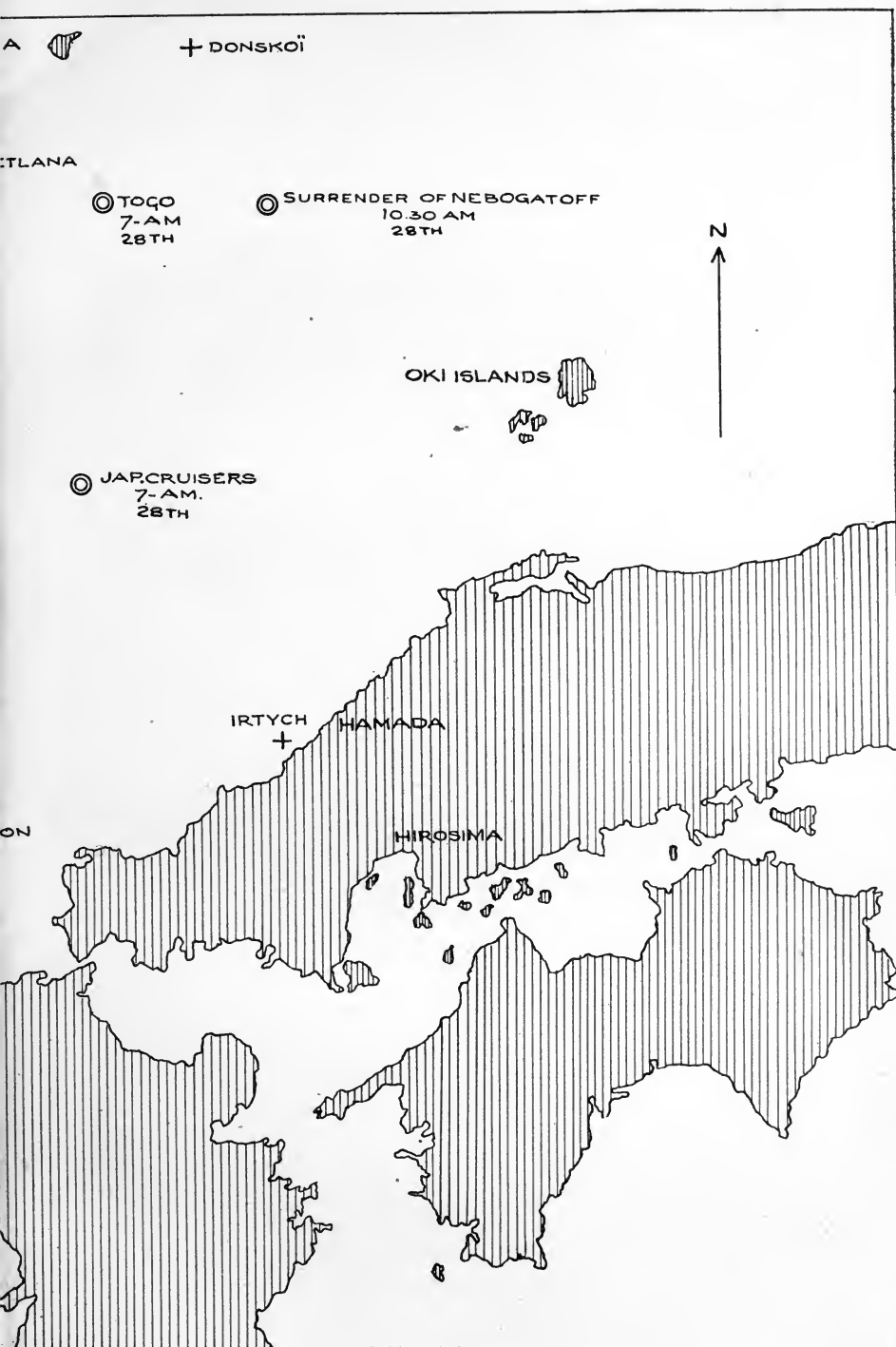
There is another resemblance between the unfortunate beaten one of 1805 and the one of 1905; both commanded hastily organized crews, without cohesion and without moral force, having received no preliminary instruction nor military training, and which had to fight against disciplined adversaries, accustomed to all exercises, above all excellent gunners.

And when we make a general survey of this war, perhaps too hastily analyzed, it is by that very thing that we can explain the causes of the Russian defeat. Surprised by a war unexpected only by itself, the government of that country carried it on, without



R = RUSSIAN FLEET
J = JAPANESE

BATTLE OF TSUSHIMA



WAR ON THE SEA.

having prepared for it, in a state of constant and disordered improvisation. That is why their ships in the Far East burned the detestable Japanese coal, while the Japanese burned Cardiff. This example by itself is as good as long arguments.

The Russian ships, before the war, never had any gunnery practice, never any concerted exercises or manœuvres; the *Cesarevitch's* heavy guns were fired for the first time in the battle of August 10.

Never at any moment of the war did the Russian sailors reflect that instruments of war like their ships are made to fight with and have no other *raison d'être*. On August 10, just as at Tsushima, they had so little wish to fight that they maintained there also a formation in three columns, the cruisers to the left of the battleships, a formation bad from every point of view, since the cruisers received the projectiles which missed the battleships. Finally they returned to port with a large reserve of projectiles; more than three-fourths of their regular supply.

If these proofs seem insufficient, I will add that, in his instructions before the sortie of August 10, Admiral Vithoft declared his intention to return to Port Arthur, *if he could not reach Vladivostok without fighting*.

Such blindness, so persisting from beginning to end of the war, must bear fruit, and the best conclusion that I can reach in closing is that the study of this war, like that of many others which preceded it, will be above all useful to us by teaching us to profit by errors which we must not imitate.

The victorious force of Admiral Togo was made of the ineradicable weakness of the Russian sailors infinitely more than of its own worth.

Never be weak!

CHAPTER VI.

RÉSUMÉ OF THE LESSONS OF HISTORY; THE OBJECTIVES OF WAR; THE RÔLE OF FLEETS; THE VALUE OF THE OFFENSIVE; BLOCKADE; COMMAND OF THE SEA.

We have passed in review, in the preceding chapters, important historical facts to derive from them a philosophic lesson, from the special point of view of naval warfare. I should have liked to be able to give a great deal more time to these studies, for there is no more fruitful method of apprehending, and above all understanding, the military art. I will even say that there is no other method.

Only those who have never examined military questions can regard it as superfluous to connect existing problems with the experience of the past. Under the pretext that "means" have been radically transformed, they deny to ancient wars the very great influence which they really exercise upon those of to-day.

But as soon as the attempt is made, as we are bound to make it here, to throw a little light upon the numerous and complex subjects involved in preparation for war, it is quickly perceived that, under penalty of enunciating sentimental propositions which other exactly opposite sentimental propositions of equal validity can destroy, it is necessary to build upon a solid foundation, and this foundation experience alone can supply.

And it is for this reason also that, although I have been obliged to cut short the space given to the general teachings of history in order to follow my program, I do not thereby renounce the benefit which its lessons confer, and we shall take no step in advance, so to speak, without asking from them the support of their experimental confirmation.

The time has come to conclude, or rather to sum up, and in this connection it seems opportune to declare that I have no pretention whatever to innovate in these matters. I do not think I am wrong in expressing my conviction that no one of the distinguished officers who have before me discussed military questions has been able to differ in opinion from me on this subject. Our rôle, much more modest, is limited to seeking and recapitulating truths old

as the world, which all the great captains have made their own, which all the military writers of note have developed, perhaps under different forms, but identical in essential ideas. And it is precisely for that reason that it has appeared to me as impossible to take up the very subject of this work without a preliminary examination of military history as it would be to understand the actual state of contemporary Europe, for example, without knowing the acts by which it was constituted.

And, finally, till now my task has been a simple and easy one: to bring together the military teachings of the most famous specialists in the art of war, to set forth their methods, above all to let them speak, as it were, so that, though with my pen, it is really these practitioners themselves, of greater authority, who lay down the general principles of the art of war and make a vision of the future emerge from the past.

The exact end which I have proposed to myself is to diffuse in the body of naval officers those eternal principles the forgetfulness of which, too frequent by the French navy in the course of its long history, has always coincided with the worst disasters that have overwhelmed it. So limited, this task is already quite fine and useful, if it allows me to contribute even slightly towards making it understood that it is necessary to avoid such errors forever and always.

If the work thus far done has been well assimilated, many memories throng upon us when we think of it; certain terms, certain ideas above all present themselves to our minds with a special persistence: the principal objective, battle, destruction of the hostile naval force, etc., all these expressions, become familiar by dint of repetition, sound in our ears like the *leitmotif*, as it were, of this study of the wars of the past.

It certainly cannot be a mere coincidence that we always find identical principles underlying the ways of acting of all the great captains; for that reason alone we already have the right to believe that their successes have been due precisely to their agreement in the application of these principles.

Perhaps it might be objected that, having chosen only a limited number of historical facts, the choice may have unconsciously been made of those which correspond with a preconceived opinion and satisfy a personal theory. If the necessary and very useful study of history has been cut short, it is, I repeat, because the

WAR ON THE SEA.

necessarily small compass of the book imposed that obligation, however powerful the interest of the subject would have been; but it is the duty of all who may read my work to fill out its deficiencies by a personal study which I cannot too earnestly recommend. They will derive from it a very great benefit, and will find new reasons, I am entirely certain, to strengthen their judgment regarding the general principles which, from Alexander, Cæsar and Hannibal to the Japanese generals, not omitting Frederick the Great and Napoleon, have *always* led to victory. I scarcely need to state, moreover, that so far as I am concerned, I took up the study of the military questions which at this moment absorb our attention with the most complete sincerity and an entire independence of thought.

And, moreover, we feel that chance alone cannot be the explanation of the great warriors, of such various times, countries and temperaments, having obeyed like rules. When we add, on the other hand, that the forgetfulness or neglect of those same rules always coincides, in the course of our naval history, with our most painful trials, it seems difficult not to be convinced that there must really exist a general method of war, which all the great captains have used, whether in conscious imitation of their predecessors in the career or at the simple suggestion of their own genius.

When we observe, on the other hand, the persistence with which certain nations in the course of history have accumulated reverses by the use of the same confusing methods, we can but think, with Commander Daveluy, that "*though many people have made war, very few have understood it,*" and since the occasion offers to speak of our comrade, I cannot too strongly advise the interesting and beneficial reading of his fine *Study of Naval Strategy*.

THE OBJECTIVES OF WARS.

We have seen, in the course of the preceding chapters, what idea Duquesne, Tourville, Suffren and Nelson, to speak only of the most famous, had of war. Their conceptions in this regard can be condensed in the classic formula, "*To seek the enemy, to come up with him and to beat him with superior forces,*" and this sums up very well, in fact, the true conception of war.

Two nations go to war as a general rule about questions of self interest, disputed territory, rivalries of political influence or of economic supremacy. In the most frequent case, the belligerents.

WAR ON THE SEA.

quarrel over a new possession which serves as a *pretext* for the armed strife; or still again, in the course of the events of war, they seek mutually to secure territorial advantages in order to bring the adversary to an agreement. Note well that this is only a *means* and not at all the object of the war. The latter is essentially limited to the intention, or the hope, of obtaining on one side or the other, by force, the result which persuasion or diplomatic negotiations have been unable to bring about.

To sustain their claims, nations have at their disposal various *forces*, military, financial, economic, moral, etc., which they oppose one to another, and it is thus that the idea of force arises as soon as the study of war is taken up; we shall concern ourselves only with military forces in this chapter. To be strong, still stronger, above all much stronger than the adversary, such briefly is the most efficacious means of conducting war to one's own best advantage.

And here it is important to have a clear understanding; the question cannot be one of force in absolute value. To lay down the principle that there is no possible success unless the totality of the military power of a country is superior to the totality of the military power of the enemy, would be to ascribe to war a much too simple character and to advance a proposition the falsity of which numerous historical facts have in advance demonstrated. It would also be to proclaim the deceptive axiom of the constant and sure triumph of brute force, as well as the immoral renunciation by weak nations of all hope of respect or even of independence.

When we speak of force, we mean *relative force*, that is to say the superiority of military power *at a fixed point* or under certain favorable conditions. The example of the Russo-Japanese war furnishes means of giving this thought the maximum of precision. If, in comparing at the beginning of this conflict and in their totality the war forces of all sorts possessed respectively by Russia and Japan, only their absolute values had been taken account of, there is no doubt that the prognostications would have been unanimously in favor of Russia, whose resources were incomparably the greater from every point of view. Thus the Japanese had in all and for all only the effective forces which they were able to bring to the front almost to a man during the war, about six hundred thousand men, while a general Russian mobilization, according to the most probable estimates, would have called to

WAR ON THE SEA.

arms an eight times greater number. And yet it is the Muscovite colossus, to use the well worn expression, who was vanquished in every encounter by his enemy, skilful in maintaining his relative military superiority at a point too far removed from the center of the Russian power for the latter to be able efficiently to bring into play the weight of his immense armament. It did not suffice that the theater of operations was connected by a way of communication to the reservoir of the total energy of the nation, if that way was too narrow. This is a too superficial view of that steel conductor, the Manchurian railroad, which exercised upon minds, in Russia and also in France, a dominating control, and imposed for so long a time, against all reason, the belief in final success. I would not for anything wish a straining after a scientific analogy to be seen in the comparison I am about to make ; it must be taken simply as an image to help out language.

For a source of energy to be utilized at a certain distance, it is not enough that it have a high potential, it is further necessary that it be connected with the center of use by a conductor of sufficient section to give the required flow. The military energy of Russia had a very high potential ; the conductor which was to transmit this energy to Manchuria had an insufficient section. The power delivered was always below the needs.

Thus then, in the case we are considering, it is the weaker people in absolute value which has seen victory crown its arms ; but it obtained this result because it knew how to be the stronger in relative value, that is to say the stronger in every combat.

And such is truly, in effect, the objective of war ; it can only be with a view to securing this advantage that war demands special combinations, a preliminary preparation, all things which would become superfluous if the numerical superiority of armies sufficed to give it.

It is with this order of ideas that the study of strategy and tactics, or better the study of the ensemble of procedures suitable to bring about this result, deals. The aim of strategy is to obtain this superiority at a point of the theater of war, that of tactics to have it at a point of the field of battle.

And why is this superiority of forces so much sought after ? Solely because at all epochs it has furnished the most certain, as well as the most rapid, solution of all wars by the destruction of the weaker military power.

WAR ON THE SEA.

So long as the forces of the belligerents are intact, they represent antagonistic efforts which are in equilibrium; a single cause can produce the dissolution of this balance, that is to say the end of the war, namely, the destruction of one of those actions, the opposing one thereby becoming preponderant.

It goes without saying, in fact, that a nation which has no armed force left at its disposal is a nation at the mercy of the conqueror, since it no longer has any means of holding him in check.

And thus clearly appear the high value and the philosophy of the principles which, to speak only of naval matters, always guided Suffren and Nelson. These considerations explain their obstinacy in the pursuit of the hostile fleets, which they rightly regarded as the principal force to destroy. And this appears so reasonable, so evidently correct, that we may well ask how, in the course of our long naval history, those who directed naval operations have been able so frequently and so obstinately to remain blind to this truth.

Examples abound. There is Pontchartrain who directs Tourville to avoid the enemy's squadron in order to capture a rich convoy; there is d'Estaing who tries to take Saint Lucia instead of to destroy Barrington's squadron; there is also de Grasse committing the same error at Saint Christopher, finally there is the French government prescribing to Admiral Courbet the useless and difficult blockade of Formosa instead of consenting to that of Petchili, in the very heart of the Chinese power.

In all these cases, the same error is manifest; the secondary and material objective conceals from the eyes of those who know not how to make war the principal objective which must be followed in order to be successful.

Yet a very little reflection will make it clear that no territorial conquest is durable, that no result can be considered definitely achieved, so long as the forces of the adversary are intact, or even still active. The collision of the antagonistic forces is therefore fated to occur at one period or another of the war, and it alone, under almost all possible circumstances, permits the conflict to be ended. Logic itself indicates, consequently, that every effort should be made to bring it on as soon as possible, under chosen conditions, because it is the surest means of fulfilling the objects of the war. Whatever may be the motives of this war, political supremacy, extension of the zone of influence, territorial or eco-

nomic conquest, etc., is it not fully proved that those motives will be so much the better and quicker satisfied as the adversary shall dispose of no further reserve strength to oppose them?

All this seems the truth itself, and yet ignorance of it seems so deep rooted in France that in our time, and almost every day, there may be read in the newspapers, there may be heard echoed in Parliament, the affirmation, wholly based on sentiment, that squadron warfare would be for France a foolish thing, and that at any cost it must be renounced. It certainly might be renounced if, after we had really tried it, it had given us only mortifications. But it is sufficient to read history to remain unalterably convinced that we have experienced disaster because of having almost always avoided it, and that by means of it, on the contrary, Suffren shed the brightest lustre on our naval arms.

Admiral Rozhstvensky's magnificent naval foray has given rise to many controversies; though there has been a unanimous admiration of the remarkable seamanlike qualities of this flag officer, which enabled him to lead his fleet from Russia to the Far Eastern seas, under exceptional difficulties of all sorts, on the other hand there was much discussion, prior to Tsushima, as to his military objective. Should the Russian admiral have sought battle with the Japanese squadron, or should he rather have attempted to avoid it in order to reach Vladivostok?

In a published article, a French general officer of high authority has maintained the thesis that Rozhstvensky's objective ought to have been Vladivostok. This same opinion is clearly expressed in a document emanating from the General Staff, having the Russo-Japanese war for its subject.

There is no doubt that the chief of the Russian squadron thought the same; the cruising formation of his fleet when it entered the Korean Strait proves this superabundantly. The recollection of Nelson's memorandum then comes forcibly to mind, and a comparison is forced upon us. In the case of the illustrious English admiral, the formation adopted for cruising was the order of battle; the Russian admiral kept in cruising order, as he would have done in time of peace, in closely grouped columns, with his impedimenta of transports and colliers. The reason is that the latter did not seek to fight. If he had even had an idea of doing so, he would have sent away his convoy, which could not be of any use and which on the contrary was a danger.

WAR ON THE SEA.

Of these two plans, which is the good one? To judge only by results, one would already be able to conclude that the one from which came the triumph of Trafalgar is infinitely superior to the other which brought forth the disaster of Tsushima.

As far as I am concerned, I pronounce energetically for the first. And since we are discussing an example essentially of the present, I will say: The principal objective of Admiral Rozhdestvensky ought to be battle; in the first place as a matter of principle, the destruction, even partial, of the Japanese naval forces being the most profitable result to attain and the most influential upon the destinies of the war; then as a necessity, the chances of escaping it being as small as possible, on account of the proximity of the Japanese naval bases and the narrowness of the passages leading to the only Russian base; finally as reasonable, this battle being the justification and the logical consummation of the immense effort undertaken by the Russian Empire to regain supremacy in the China seas.

D'Estaing, de Grasse, Brueys, and Villeneuve were beaten because they fought only when forced to; Rozhdestvensky tasted defeat because he had to be dragged to battle. The sortie of August 10 from Port Arthur was a pitiable failure likewise because, even before they set out, the staff officers of the Russian ships were resolved not to fight. Suffren, Nelson and Togo were victorious because, on the contrary, they wished, sought for and prepared for battle. The same causes have produced the same effects.

And how can it be, after this, that in France certain cultivated minds still maintain the same error?

I shall not weary of repeating that it is the duty of all naval officers sustained by the study of war to uproot these ideas which periodically spring up in France with the vigor of vegetable parasites, and positively to implant the true doctrine of war by educating public opinion; such a result would by itself alone justify the foundation of the War College and make plain the immense service rendered to the country by the Minister of 1895-96.

In this connection, I must confess that in beginning this chapter I had some doubts as to its utility. For a moment I asked myself if I should not be accused of breaking through doors already open or of speaking platitudes, so evident do the propositions here set forth appear and so much the mere expressions of common sense.

WAR ON THE SEA.

I was reassured by the recollection of the persistence of certain errors and by the perception of the necessity of extirpating them.

So then, for us, the principal objective remains always the pursuit and destruction of the *enemy afloat*. This will be the solid and enduring foundation of our military edifice.

THE OFFENSIVE.

In writing the word *pursuit*, I thereby indicate the choice between two opposing methods of war, the comparison between which has given rise to long and warm discussions. I refer to the offensive and the defensive. With very few exceptions, which serve but to confirm the rule, the former is infinitely superior to the latter.

In his *Esprit des Lois*, Montesquieu says: "*The nature of defensive warfare is discouraging, it gives to the enemy the advantage of the courage and energy of the attack; it would be better to risk something by an offensive war than to depress minds by keeping them in suspense.*"

"*Fortunate the soldier,*" says Von der Goltz, "*to whom destiny assigns the rôle of assailant.*" And he adds: "*To make war is to attack.*"

And it is truly a fact that all the great warriors have adopted the offensive and by it secured their most brilliant victories; this may be understood, for the offensive gives to the leader who employs it, even before any action, precious advantages. Such a one knows what he intends to attempt, while his adversary is ignorant of it. He is master of his movements, of the time and of the place where he will carry on the action, and the action takes from these eminently favorable conditions a character of precision from which the adversary is unable to derive any benefit. To the latter everything is unknown; among all the plans that he can ascribe to his enemy, among all allowable hypotheses, which must he select? Taking into account the nervousness of public opinion, quick to be alarmed and to magnify beyond measure the dangers to which the country is exposed, it may be imagined how disagreeable must be the rôle of the military chief upon whom the defensive is imposed. One need not be much of a prophet to predict that at least in France, of all countries perhaps the most impressionable, this opinion, to-day a sovereign and exacting mistress, would not long endure the anxiety, the anguish even, of the prolonged waiting

which is the consequence of the defensive method. To understand why I am firmly convinced that at the end of scarcely a few days of enervating inaction the fleet would be driven out of harbor under the most unfavorable conditions, it is enough to recall the emotion roused in the United States, by the departure of Admiral Cervera's squadron for the West Indies, in the course of the Spanish-American war.

The fright of all the people of the American sea coast towns, who each day, and in each group of inoffensive steamships, saw the phantom squadron, throughout the period of its passage, proves to us that they thoroughly misunderstand our country who advocate, as is done daily, the policy, as fruitless as passive, of squadrons shutting themselves up in port.

Without giving an exaggerated importance to examples taken from the annual grand manœuvres, it is nevertheless allowable to observe that most frequently, I might say always, it is upon the side charged with attacking that the most brilliant rôle has devolved, as well as the easiest task.

And the superiority of the offensive is worth insisting upon, because it is particularly suited to the French character, to the temperament of this ardent and combative people; it is for that reason that we will agree with Admiral Bouët-Villaumez: "*The rôle of assailant, more suited to the nature of the French sailor as well as soldier, is then the one which an admiral ought to seek, and much more ought he seize upon it, if chance places him in the attacking position.*"

Observe, in this connection, that the word offensive is here taken in its broadest sense; it applies equally to tactics and to strategy, to the attack of a fleet on the field of battle and to its pursuit from the opening of the war, or to any other similar military action against the hostile forces.

The offensive method demands before all else one primary quality—activity; that which Alexander, Cæsar, Hannibal, Napoleon, Suffren and Nelson possessed to the highest degree. It demands great force of character on the part of the chief, with a tenacious will controlled by a great intelligence.

But that is not enough, this chief must have, to-day as of old, the instrument suited to this offensive war made up of energy and resolution. The idea of activity translates itself for us seamen by the expression *speed*.

WAR ON THE SEA.

Whether the matter at issue be to pursue the enemy, or to prevent, by a sudden attack which disconcerts him and defeats his plans, his own assumption of the offensive, it may be conceived what must be the primary importance of *time*.

The more rapidly the execution of the offensive is carried out, and the less the loss of time, so much the greater the chance of its being crowned with success. In war, to strike quickly is the first step towards striking hard.

In the field of naval strategy this signifies, once again, that *naval forces* ought above all to possess speed. When Nelson was pursuing with his well known vehemence, first Bruey's squadron bearing Bonaparte and his fortunes, then later on that of Villeneuve across the Mediterranean and the Atlantic, one single anxiety absorbed him to such an extent as to make him sometimes doubtful of his star: the delays which persistent contrary winds imposed upon him and the loss of time which resulted from them.

Is it not absolutely sure that in the eyes of the great seaman, in those moments, all which was not related to the factor *speed* must have seemed of quite secondary importance? On the other hand, is it not to the lack of speed of his fleet, due to the presence of several slow-sailing ships, that Villeneuve attributed the length of his passage from France to the West Indies, and the delays in the execution of the Emperor's strategic plan?

From whatever side the question is looked at, therefore, the idea of the strategic value of speed is forcibly impressed upon us. And, in fact, speed is above all a strategic quality. This statement is the more necessary to make because the initial preponderance of its rôle has been denied by some of our most eminent engineers, the authority of whose opinions does not permit leaving them unanswered. All taking the rather too narrow point of view of the constructor, they have brought forward the great cost of speed in the equation of the fighting ship.

The thorough discussion of this very important question cannot be introduced here. I will only observe that with a view to simplify it, to dispel certain of its difficulties and reduce their complexity, the learned naval architects lay down a principle to which they seem to wish to give the force of an axiom, namely, that from the moment that two nations go to war, one ought to conclude that they wish to fight, and that there is therefore no need of hav-

WAR ON THE SEA.

ing speed greater than that of one's adversary since, the latter equally desiring to fight, the encounter will necessarily take place.

It is not necessary to look very far in history to find facts which give the lie to this principle. Without going back to Villeneuve's campaign in the West Indies, and to so many others of the same kind, which prove how often an adversary can slip away and avoid fighting, the very recent example of the Russo-Japanese war is relevant to show us that a nation can very well submit to a war without any preparation and never seek combat.

The axiom crumbles away before the facts, and there is no occasion to be surprised at it. The question is not, in fact, to know if speed is costly and if, for the constructor, it would be worth while to reduce it. The problem is too restricted when so put; speed, strategically speaking, is indispensable, that is the only exact principle in the matter.

And outside of arguments based upon historical facts, it is difficult to see how, in the absence of the precious advantage of speed, an admiral could attain his principal objective, which ought to be to paralyze the hostile naval forces; in a word, to suppress the enemy afloat.

Two cases can present themselves in practice. First, the fleet whose destruction above all is sought may accept battle or be forced to submit to it, which comes to the same thing. This result is implicitly contained in the previous discussion of principle; it is of the highest importance to bring about the battle with the least possible delay, not only because it is desirable to secure as soon as possible the benefits of victory, or on the other hand to reduce to a minimum the evils of war, but also because such conditions of operating necessitate prompt conclusions. A single example will suffice; if *interior lines* are occupied, speed alone can give the ability to overwhelm one of the enemy's forces before he has brought about their complete concentration. Such would have been the case for the Russian fleet on August 10, if it had taken advantage of the division of the Japanese forces.

Second, the adversary may conceal himself and refuse battle; in this case, it is not clear how, if he has the greater speed, he can be forced, *immediately*, to submit to the encounter which he persists in fleeing from. Doubtless the hazards of fortune, especially on the sea, are very great, and can spoil the best prepared plans

WAR ON THE SEA.

by forcing to battle a chief who would have none of it, but chance ought not to be counted upon.

I do not at all forget that I have already many times shown, by historic examples, the impossibility of always refusing to fight. There always comes a time when the fleeing forces will be forced to battle (Huascar, Vladivostok cruisers, etc.) ; but this term, if other things are equal, will be so much the further removed as the assailant's speed is less. This condition, then, is not in accord with the exigencies of war, which demands, for many reasons of all kinds, as prompt solutions as possible.

If, on the contrary, one possesses superiority of speed, the adversary finds himself placed between the two alternatives only of accepting battle or of shutting himself up in port.

This is the proper time to define this question of speed, in order to leave no room for misunderstanding. We have taken pains to dwell upon the reasons which made us regard this strategical feature as an essential one. Those reasons are wholly derived from the necessity of seeking battle, and we cannot agree with those who on the contrary advocate speed for the purpose of flight. I read recently in a publication of no particular standing an article maintaining this strange principle, to which I would not refer had it not quoted, as a favorable argument, a speech made in Parliament by an important personage.

In a fine flight of eloquence in advocacy of speed, this orator reminded his hearers very justly that the French nation owed its most beautiful memories of military glory to speed ; but he forgot to limit his argument to the fact that when, in the immortal campaign of Italy for example, Napoleon made such a wonderful use of it, it was to surprise the enemy and attack him, and that wherever speed has assured success it is only by *conducting to battle*.

Personally I value the teachings of history too highly to take exception to them, but it is necessary not to interpret them wrongly. And the quotation which follows is in exact contradiction to all the experimental facts of war : "*Suppose that instead of our clumsy squadrons imprisoned in their heavy Harveyed armor as were in their iron shells, during the decadence of the middle ages, those knights upon whom the leather clothed foot soldiers, the ancestors of our modern infantry, inflicted the disasters that we know of; suppose that instead of these clumsy squadrons we had fast ships, capable of avoiding their attacks, what*

WAR ON THE SEA.

would become of that empire of the seas so much talked about for these battleships?

"What is so pompously called the empire of the seas will be reduced to the narrow circle which that assemblage of fortresses called battleships traces on the immense surface of the seas with the range of its guns.

"And this assemblage may carry to and fro over the waters the mighty shadow of its armored walls and giant guns; but to what purpose, if the fast ships of the enemy, always capable of escaping from it, can carry everywhere where it is not, perhaps even within a few kilometers of it, menace and destruction."

I have given this extract, so foreign to the doctrines of war, to demonstrate once more how important it is to destroy, at least in the minds of officers, the ideas which are there expressed, and which are by no means new.

They are, moreover, it will be noticed, the exact opposite of those which are defended by the engineers of whom I have heretofore spoken.

Let us at once note that the second solution, which consists in staying in port, indicated by so many well intentioned advisers as the only possible course for the French fleet to follow, practically settles at one blow the principal problem of the war in favor of the assailant, and with the maximum benefit to him, since he obtains the desired result, which is putting the adverse forces out of condition to do harm, without any loss of material or personnel on his own side.

COMMAND OF THE SEA.

These considerations awaken in us the idea of the blockade and of command of the sea, two conceptions of exceptional value.

To have command of the sea, such is the expression familiar to all seamen which, in a concise formula, contains a world of ideas and thoughts, and epitomizes as it were the whole of naval strategy.

It does not signify only, for the victorious side, the definite conquest of the field of operations of war; it comprises also freedom of navigation, security of commercial transactions, circulation of the flag, all that represents the active life of a great nation, and which constitutes very often the object itself of the conflict. It is precisely so that it fully satisfies the necessities of war.

WAR ON THE SEA.

In the celebrated struggle between Rome and Carthage, have we not seen fortune waver from one to the other, following the fluctuations of their naval strength, to settle definitely upon the one which finally succeeded in conquering command of the sea?

This conflict originated in a rivalry for economic supremacy upon the sea; such supremacy was assured to the victor by the conquest of the supremacy of war fleets.

When we see around us all nations preparing formidable fleets, we cannot help establishing a relationship with the occurrences of the Punic Wars.

After centuries, this time again, the same causes produce the same effects. When the German-Emperor pronounced that celebrated phrase: "*The future is upon the sea,*" he showed that he had a clear conception of the principles of war, and that a nation could not pretend to secure a world wide economic empire if it was not prepared, with the industrial and peaceful mastery of commercial fleets, to impose by force the mastery of military fleets.

There is the secret of the great effort made by Germany during recent years, to increase her naval forces.

It is also well to recall that, in the course of the unfortunate war of 1870, if the sea was always free for us, and by permitting us to prolong our resistance through the resources of all sorts which came by that way, helped to save the honor of France, it was to the uncontested superiority of our navy that the result was due.

The moment is favorable to decide a prejudicial question which has inflamed naval debaters for twenty years past. Although the discussion seems to have now lost much of its asperity, it is indispensable to settle it, because in spite of the luminous demonstrations of experience it still continues. For us, who have sought at their very sources the reasons for our convictions, the expression "command of the sea" immediately awakens in the mind the very clear perception that to exist this command must be absolute, that is to say be exercised through material forces, real and capable of triumphing over all obstacles, and among the latter must be counted those which sea-going opposes to the free use of fleets. The condition necessary for the conquest and conservation of a free maritime highway is therefore to possess *seaworthy* ships, fit to keep the sea in any weather. This requirement spells the incapacity of flotillas to fill this capital rôle.

For us seamen, who know how great the influence of the mass of a ship is in the constant struggle with the elements, who have learned by personal experience that the bigger a ship the longer she can stand up against heavy weather, this affirmation is an article of faith.

That it has, nevertheless, constantly been contested by those who had neither the competence nor the right to discuss it, is because the controversy has always been limited to the question of weapons. But the question is not to oppose torpedo against gun, as was attempted at each phase of the recent war; that is not it. Putting aside the question of weapons, what we must know is whether command of the sea can be won by flotillas.

And to this the Russo-Japanese war, besides so many others of the last and previous centuries, has replied with a precision which leaves no room for any possible controversy: the discussion is closed.

If at Tsushima the Japanese had had only torpedo-boats, nothing could have stopped the Second Pacific Squadron in the Korean Strait and in its passage to Vladivostok. And it is not because the Japanese naval forces would have been able to oppose only torpedoes to the Russian guns that this defeat would have been inflicted upon the Japanese, but because their torpedo boats could not face a sea which Rozhstvensky's ships easily confronted. This is what the disputants of eighteen or twenty years ago, and among them the most eloquent, Gabriel Charmes, did not comprehend when they dreamed of chasing great squadrons from the seas with mosquito fleets.

These theories are already very far removed from us, and I have only thought that they should be recalled because they seem to have taken on new life with the appearance of a more modern instrument of warfare, the sub-marine.

At each stage of the war in the Far East, a whole school, taking its wishes for realities, has proclaimed the superiority of submarines over squadrons. Unhappily for it, they were never at any time used. But certain illusions are so tenacious that, contrary to every experience of war and of sea-going, people have assumed to compel the French navy to have only sub-marines.

If such a decision could some day be taken, and upon this point I do not think that my personal opinion can be at all doubtful, on that same day our definite downfall would be consummated.

WAR ON THE SEA.

The sea can no better be kept with sub-marines than with torpedo-boats, no more than it was formerly kept with fire ships; they are all flotillas.

To command the sea, fleets are necessary.

In a more restricted portion of the sphere of operations of war, this command is no less indispensable.

If the principal, or even secondary, object of the war is conquest of territory, this carries with it an armed expedition, and consequently the transportation by sea of military forces to form the army of occupation of the coveted land.

This is what is commonly called, in military language, a combined operation. In an operation of this sort, the navy has the disagreeable part to play. Upon it devolves the protection of the convoy of troops during the entire passage; and that is a small thing in comparison with the protection of their disembarkation. It is not necessary to dwell upon the subject to make all the difficulties of such an undertaking apparent to seamen by profession. To prearrange the anchorage in a roadstead, most often an open one, of a fleet of transports, and to assure the absolute safety of the operations of disembarking numerous troops with all their campaign material, is an extremely arduous task. I mention only its main features, but they are enough to make evident the absolute impossibility of success without the no less absolute certainty of not being exposed to any danger of attack by the enemy.

The wide spread disorder and panic which the appearance of a hostile fleet in the midst of such an enterprise would produce may be imagined. The security which is indispensable is only assured by complete command of the sea.

And I have made no mention of the rigid obligation of assuring the communications of the expeditionary corps with their base of operations, a condition only attainable with the sea free.

As long as Admiral Cervera's squadron, keeping the sea, was a possible menace, the United States fleet attempted no decisive operation; as soon as the Spanish squadron was on the contrary shut up in Santiago, the expedition was decided upon and could set out from Key West.

If the Japanese had not won, from the beginning of the last war, entire liberty of movement, never would they have been able to carry out successfully the disembarkation in Korea of armies so numerous, amounting to six hundred thousand men.

WAR ON THE SEA.

It is interesting to note that the only serious cessation observed in this delicate operation, which scarcely ceased during the whole time of the war, coincided exactly with the awakening of activity which the unfortunate Admiral Makaroff was able to inspire in the Russian fleet of Port Arthur.

Finally, is it not because Napoleon was at no instant able to secure a free path, in spite of the wisest combinations of his genius, that he had to give up his project of invading England, and to confess himself later on vanquished by her?

The notion of "command of the sea" ought to be very definite; by this term supremacy over all oceans is not to be understood. England alone was able, strictly speaking, to cherish that megalomaniac dream some years ago; she herself is no longer able to pretend to it to-day. The expression applies solely to the maritime theater of possible operations.

This command of the sea, which plays thus in the development of every naval war so preponderant a part, can only be secured, I remind you, by two means: the blockade of the adverse forces in their ports, or the destruction of those forces in battle.

BLOCKADES.

The former of these means has been often used in the past; the history of our struggles with England furnishes many examples of it.

Among those best known, the blockade of Brest by the fleets of Cornwallis and those of Toulon by Nelson are justly famous. In our times, that of Santiago de Cuba by Admiral Sampson's squadron, and that of Port Arthur by Admiral Togo, give proof that the method is not obsolete.

And it never can become so, for if what we have said of the importance of a free sea is true, it is of the highest importance to invest the place in which a hostile fleet has taken refuge, not only thereby to deprive it of the power to act, but also to keep a close watch upon it and to be upon its track in case it should attempt a sortie.

Thus the plan of blockading serves two purposes; it enables one to realize the benefit of command of the sea without fighting and so without loss, and also, above all, to establish as close as possible a contact with the fleet which it is necessary to endeavor to destroy. The principal objective is therefore satisfied.

WAR ON THE SEA.

The case of Nelson, blockading Villeneuve's fleet, is remembered by all, and on this subject it is well to define with some precision the expression blockade. We do not mean by it only the operation which consists in surrounding the entrances of a port or roadstead with a cordon of ships so close together that no blockaded vessel can pass without being seen and fired upon. Such a conception would truly be too narrow and furthermore inefficacious, even if not too dangerous, nowadays.

By a blockade must be understood any stationing of a naval force at a distance near enough to the refuge of the hostile squadron to permit watching all its movements and to prevent its escaping from this watch by flight.

There is therefore a blockade whenever the circle of surveillance about the blockaded point is restricted enough to make the meeting of the two fleets, and consequently their engagement, certain. Such was the case formerly, in the days of sailing ships, as when Nelson, from his famous Agincourt bay, blockaded Toulon and the French squadrons as rigorously as if he had been on the coast of Provence. How much more so is it now, when improvements of every kind, the result of steam navigation, permit the removal of the base of operations of a blockade to a considerable distance! The introduction of wireless telegraphy on warships has overturned the practical conditions in this respect; thanks to this system of rapid communications over great distances, a blockade will be as effective to-day at a hundred miles distance as it could formerly have been at a very few miles from the blockaded coast.

We find the proof of this in the preliminaries of the naval battle of Tsushima, where it was a wireless message that warned the Japanese fleet of the approach of the Russian squadron and put it in motion at the right time to enable it to find the latter at the desired point.

This step in naval progress is so much the more important because the profound modifications in material and modern armament have made it absolutely necessary to increase blockading distance. The appearance of the torpedo-boat, followed by that of the sub-marine, have made it much too dangerous, in fact, to remain day and night in close proximity to a coast.

It may be said, in this connection, that the blockade of Santiago is not a representative case and ought never to have taken place as it did. The complete disorganization of the defence, the complete

WAR ON THE SEA.

military and naval anarchy of unhappy Spain, and the absence of torpedo-boats, or, more exactly, of such boats having *good* torpedoes, straight shooting and properly exploding, were necessary to afford the spectacle of an American admiral daring to station each night one of his battleships before the harbor mouth, and to do so with impunity.

The withdrawing of the enveloping line to a great distance, then, offers only advantages, since the means of surveillance and of communication are correspondingly modified.

It must also be said that it would be vain to seek to blockade so closely as to indulge the hope of preventing any escape of single vessels. At no period in history has there been a guard strict enough to stop a fast ship, commanded by an energetic and resolute seaman, knowing how to take advantage of all circumstances favorable to passing between the links of the blockading chain.

The "blockade runners" of the Southern fleet, during the war of the American secession, have left imperishable memories on this subject.

The blockade of Port Arthur was never strict enough to prevent some steamers or junks from taking supplies into that place.

There are still, in our time, fine chances for bold and brilliant manœuvering on the part of the commanders of modern high-speed cruisers, and there are enough moonless nights to permit discounting opportunities equally numerous.

Moreover the importance of the escape of a single ship must not be exaggerated; command of the sea will not thus be compromised for the blockading force. It is, in fact, the totality of the hostile fleet which, by the assemblage of its units, constitutes the only real force which it is important to watch and to blockade, always with a view to attain the principal objective, which is to force it to fight.

Thus is the question plainly set forth: immediate battle and blockade, in the broad sense in which it has just been defined, but unchangeable in its principles, are the two efficient means which assure command of the sea.

THE PRINCIPAL OBJECTIVE.

On examining the question, it is at once seen that in reality only the first of these two means is definite and decisive; the second can furnish but a provisional solution. And it is so true that battle is the real end and objective of every war that even those

who advocate for the French navy a passive waiting in port consider this inactivity a measure wholly for the moment and occasion; they point it out as the means of awaiting a "favorable opportunity." They usually neglect to define what constitutes such a favorable opportunity.

The neglect is not accidental, for these exceptional circumstances, by the firm but delusive hope of which they are deceived, are not easily imagined.

I understand very well that, in this solution, there is seen the tempting image of a relaxation in the watch of the blockading forces, of a conjunction of weather and the elements accidentally scattering those forces, in a manner to reverse the rôles and give to the besieged superiority of numbers.

It is very necessary, in reasoning thus, to count upon the favorable chances, for the very definition of the blockade leaves no room to doubt that the fleet employing it is composed of very superior forces. To judge of the practical value of such hopes, the history, so constantly fruitful in teachings, of the naval war of 1805, and particularly the correspondences of Nelson and Villeneuve, must be attentively read.

They also, in the French fleet, counted upon the benefit of bad weather breaking the rigid circle with which the English fleet hemmed them in; it is well known what the result was of that first sortie of January 18, from which the French ships had to return to port half wrecked by a violent storm from the southwest, so much the worse for them because the long-continued idleness in which they had lived for months in the Toulon roadstead had unfitted them to encounter it.

The English fleet, for their part, wonderfully trained by enduring the trials of a long blockade, went through this tempest without damage or injury. "*Instead of putting to sea in spite of the English squadrons, forcing a way if necessary,*" wrote Admiral Jurien de la Gravière, "*they preferred to wait until a gale of wind compelled the latter to raise the blockade. They went out then favored by a storm, and more than once that storm gave them no opportunity of doing anything against the enemy.*"

This method has verily been too unsuccessful for us in the past not to be given up in future.

Villeneuve certainly succeeded, in his second attempt on March 29, in escaping Nelson's watchfulness and breaking the blockade.

But this was only an absolutely secondary episode of the great military drama whose conclusion, logical and unimpeachable as far as the principles of war are concerned, was to be Trafalgar, that is to say *battle*.

At Santiago de Cuba, the sortie of unfortunate Cervera's squadron, had it been successfully accomplished, would only have delayed by a few days the final result. So too the naval battle of August 10, which marked the first Russian naval disaster of importance, was but the material and logical consecration of a defeat virtually accomplished from the day that the superior naval forces of the Japanese blockaded the Russian squadron in Port Arthur.

In a document on the subject of the Russo-Japanese war, drawn up by the General Staff, I find this expression: "*If Rozhstvensky had been able to reach Vladivostok with his fleet intact, this accomplishment could have been regarded as equivalent to a victory. In the shelter of a safe harbor, having at his disposal docks and coal, he forced the Japanese to wear themselves out by hard cruising, and kept himself, as a perpetual threat to their communications by sea, master of the choice of the hour when it would suit him to engage in battle.*"

Is it not curious to again find, after the lapse of a century, the same proposition which attributed to the French fleets snug in harbor better preparation than that of the enemy's forces at strife with the sea. We know only too well what to think of it.

Villeneuve said to his sailors: "*Nothing ought to astonish us in the sight of an English squadron, their ships are worn by a two-years' cruise.*" That which he also believed to be a "hard cruise" was in reality the wonderful school of experience, where by enduring the bitter trials of sea life, characters were formed and with them the incomparable instrument which Nelson was to use so well.

If Rozhstvensky had been able to reach Vladivostok, he would have been immediately and closely blockaded by the Japanese naval forces, and the final result would merely have been postponed.

Command of the sea was assured just the same to the Japanese by this blockade, and on the fatal day when, under the impulsion of events or of public opinion, the Russian naval forces, depressed by their long enforced inaction, resigned themselves to going out, they would have found opposed to them warlike fleets, inured to

all the hardships of cruising, impregnated with that profound seaman's sense which constant sea experience alone can give. They would have been beaten in the same manner as they were at Tsushima and for the same reasons.

It is thus that indispensable history, ancient or contemporary, teaches us, with unescapable logic, that war can have no other effective sanction than battle.

Whether it be a little sooner or a little later, at the beginning or at the end of the war, battle is unescapable and the moment will inevitably come when the *two antagonistic forces* find themselves face to face.

To speak truly, from the moment that these forces are in sight of one another the rôle of initial preparation for war effaces itself before that of the commander-in-chief.

The hour is about to sound when the heaviest responsibilities accumulate upon the head of a single man, and when the wisest plans, the most minute precautions, the most legitimate hopes, since they are based upon foresight, may be annihilated, if that man does not measure up to the occasion. Strategical conceptions give way to those of tactics.

At the point which we have reached, must we then be forced to this somewhat discouraging conclusion that at the instant of engaging the presence of the man of genius is indispensable, and that in his absence all hope must be abandoned?

Whatever may be the help that the presence of such a chief could bring to his fleet, it is wiser to count without him. The attentive study of the *way* of great seamen in the past is particularly reassuring in this respect, for it enables us to perceive that there exist a certain number of principles, if not a method, inseparable from success.

In carefully examining them, we shall not be long in recognizing them, for they are identical upon all points with those which the necessities of a strategical order have lead us to lay down.

Here in fact are represented the first two terms of the classic formula laid down at the beginning of the chapter.

"To seek the enemy, to come up with him . . ." There remains *"to beat him with superior forces."*

Must we understand this to be a mere numerical statement, signifying that to a fixed number of hostile ships it is needful always to oppose a greater number of ships of the same kind?

WAR ON THE SEA.

If an affair so complicated and so difficult as battle is could be reduced to a simple question of arithmetic, the most magnificent feats of arms which have illustrated history would have to be stricken from its records.

Disregarding the many examples in military wars where Alexander, Hannibal and Napoleon beat hostile armies most frequently more numerous than their own troops, it is particularly interesting to observe that at Trafalgar, as well as at Aboukir, Nelson was inferior in numbers and yet carried off the victory each time—and what victories!

Just as, when we examined the general principles of war, we were led to conclude that the important thing is to be stronger than the adversary at one definite point of the strategic game board, we will now say that the superiority of forces which it is essential to seek and to obtain, on the field of battle, should be at one definite point of that field, over a fraction of the adverse forces; once more we come upon the notion of *relative* superiority.

But before going more deeply into this subject, there is another principle which more pressingly invites our attention. The question is once more of the choice to make between two methods of fighting; the offensive and the defensive, and the question is hardly proposed before our choice is easily devined. It is useless to renew all the arguments that I have already developed in support of the first method when the question was of seeking the enemy and forcing him to battle; the whole weight of those arguments can but be increased when the question becomes that of fighting him. The rôle of assailant possesses inherently too many moral advantages of all sorts for its renouncement to be thought of. Yet, whatever the strength of the argument, it would not be sufficient to enforce conviction, if the relentless teachings of the past did not remind us that our most grievous reverses upon the sea have been the fruit of our passive method of making war. Far from seeking combat, we have most frequently only yielded to it.

In this connection, the words of Admiral Jurien de la Gravière cannot be too much pondered: "*If the names of some of our admirals are to-day so sadly associated with the memory of our disasters, the fault, let us be sure, is not at all wholly theirs. Rather must the character of the operations in which they were engaged be accused, and that system of DEFENSIVE warfare which Pitt de-*

WAR ON THE SEA.

clared, in Parliament, to be the precursor of inevitable ruin. This system, when we wished to renounce it, had already become habitual to us; it had weakened our arms and paralyzed our confidence. Too often our squadrons left our ports with a special mission to fulfil and the intention of avoiding the enemy; to meet him was already an adverse stroke. It was thus that our ships presented themselves to battle; they underwent it instead of imposing it."

"... For a long time this restricted and timid warfare, THIS DEFENSIVE WARFARE, could be kept up, thanks to the circumspection of the English admirals and the traditions of the old tactics. It was with these traditions that Aboukir broke; the time of decisive battles had come."

Among all the examples that could be selected, that of Aboukir certainly affords the most striking contrast between the two methods of fighting. On the French side, there is the defensive in its most indolent and depressing inactivity; the squadron is at anchor, already by that single fact in a notable state of inferiority since it is unable to manœuver. Moreover, it is without proper lookout service, so that the news of the approach of the English fleet surprises it in full disorder; and virile resolution is to such an extent wanting to its leaders that but a single voice, that of Blanquet du Chayla, is raised, without success, to demand that they fight under way.

This picture of a fleet at anchor, letting another fleet full of life and ardor come upon it, does it not appear as the very symbol of passive resignation, of the defensive method in fine?

If this were an isolated example, perhaps the value of the argument based upon it could be contested; but did not the naval battle of Sluys, several centuries before Aboukir, itself also have as a characteristic the complete defeat of the fleet which accepted battle at anchor?

This result cannot be surprising, for the idea we form of fighting is inseparable from that of action; and, to repeat it once more, a naval force which is incapable of manœuvering, and which awaits, moored to its anchors, the adversary's attack, is not an acting force.

Quite otherwise is the appearance on the side of the English squadron; here everywhere is combative ardor, from the commander-in-chief to the last sailor. Each one knows where he is going and what he has to do, so that all efforts tend to a single

object and work with an irresistible force. This is the offensive spirit in the full acceptance of the term and of the idea.

Signals are useless, and only the strictly indispensable minimum of these are made, for Nelson's captains have long known his plan; they know that he will seek to crush one wing of the French squadron "with superior forces." It will be, in the case of the battle of Aboukir, the head of the French squadron which will thus be crushed by superior effort, the turn of the rear of the line being to follow.

Furthermore, if Nelson knew how to apply this principle with incomparable mastery, it is not his invention. Ever since the legendary tactics of the Horatii, to repeat, a great number of their imitators, at all stages in the world's history, have striven, by skill or cunning, to beat in detail adversaries whom they could not overcome all together.

Without going outside of purely naval actions, we have seen Suffren adopt this same tactics, seek to attack a fraction of the opposing fleet with the whole of his own forces, and endeavor to obtain thus, *at one point* of the battle field, numerical superiority. In the English navy likewise, Rodney, at the battle of Dominica, had already cut the enemy's line in such a manner as to throw it into disorder, dislocating it as it were, and to bring between two fires a portion of that line.

An English writer, Clerk, a great admirer of Suffren, has laid down, in an epoch-making work, a whole body of doctrines based on these tactics which Nelson was later himself to adopt. Recently, Admiral Togo, at the battle of Tsushima, attacked the Russian squadron in a manner which strikingly resembles that of the English fleet at Trafalgar. The two Japanese squadrons, or more exactly their fleet divided into two squadrons, crushed one part of the Russian line, as the two squadrons of Nelson and Collingwood did in the case of the allied fleet, not choosing the same part, nor attacking in the same way, but under the inspiration of the same principles, which alone are important.

In truth, this method does not belong exclusively to any great chief; it is as old as the world, and I am tempted to say that it derives solely from good sense. If it was lost sight of, at least in the naval wars which immediately preceded the campaigns of Suffren and Nelson, if, for a very long time, a naval battle was looked upon only as an engagement, in a way academic, between two

columns correctly opposed one symmetrically to the other, this momentary neglect of the true principles of war takes away nothing from their force.

In the work of which mention has already been made, Clerk points out the special importance of bringing a squadron into action in such formation that the units can mutually support each other. This point of view is certainly correct; it is wholly contained, moreover, in the offensive program which exacts, for success, a perfect union of efforts, directed towards a single object.

It is this program that the French navy has so rarely made its own; for proof of it I would wish nothing but that interesting remark made by Mahan that the French fleets have almost always engaged from *to leeward*; it is this same program which it is indispensable for us to adopt definitely in order to break away from the old ways which have led us only to mortifications.

Though tactics changes as to its procedures, it does not follow that its principles change. Doubtless in the time of sailing ships the weather gauge had an inestimable value which no longer exists; but that is only one detail which another detail will replace.

In our time, for example, it is the sun gauge which it is necessary to struggle to obtain. If the sun is reflected back from the adversary, all the details of the targets are brought out clearly, and the aim has a precision which becomes, on the other hand, impossible when it is directly in the eyes of the gun pointers. It is thus that at Tsushima Admiral Togo secured for himself this one advantage more over his enemy.

It is not enough, finally, to have overcome the adversary, to have compelled him to cease fighting and to retreat, it is necessary to annihilate him, to destroy completely the power that he represents, and there is but one method of doing this; pursuit, a furious, implacable pursuit, giving neither respite nor repose to the remnants of the beaten fleet. To a fleet thus harassed, no hope of renewing its strength is any longer left, and that alone responds to the aim of the war.

Any other method leads but to half victories, which are not rigorous solutions and remain too often sterile.

I would not wish any possible misunderstanding as to the scope of the chapter I have just written; and, in this respect, it is not superfluous to return to a certain statement made in the introduction itself of the present work.

There must not be seen, in the exposition which has just been made, the least pretention to a doctrinal teaching of victory ; that, I repeat, cannot be taught. The sole legitimate ambition in this matter ought to be and is, in reality, to co-ordinate, as we have, the lessons of history ; to make a classification of the methods of war used in the past and to show which of them have been crowned with success.

Such a work is legitimate, for it permits of bringing out clearly a quite small number of fundamental laws of which it is exact to say that their neglect means certain failure.

Doubtless, once more, nothing can take the place of a good general ; but, other things being equal, the latter will be so much the more certain of victory as he follows, in a general way, the method of the most illustrious warriors among his predecessors.

Upon the field of action, the more convinced he is of the necessity of striking at his enemy's weak point, the more easily will he discover that point.

But let us not be deceived here ; this method, which we have broadly outlined, exacts a long and methodical preparation, leaving to chance and circumstances only the minimum part.

To maintain formidable forces, to discern the vulnerable point of the adversary, to carry there rapidly the maximum possible effort to obtain at that point superiority, such is the rôle of strategy and, consequently, of the General Staff.

To watch closely the opposing forces of the adversary, to compel him to battle, to discover the weak point in his formation, and to bring the whole of one's own forces to bear upon that point, that is the rôle of the tactician, that is to say of the commander-in-chief.

Both are grandiose in their conception ; the first, the more abstract, admits, as we shall see later on, of as many different methods of execution as there may be nations at war ; the second is of more general application. But the second exacts also a perfect understanding between the commander-in-chief and his subordinates. There ought to be no secrets between them, and the thought of the general ought to become that of all his captains.

A single object ought to guide them—battle ; and it is for that reason also that during the period of search for the enemy everything ought to be planned as if that battle might take place at any

instant. This implies that "the order of cruising is to be the order of battle."

Finally, as a consequence of the requirements above set forth, once battle is engaged, signals become useless: "honor to whomsoever does the best."

"The admiral-in-chief ought as much as possible," says Admiral Bouët-Villaumez, "foresee before the battle the manœuvres to be made; and once fire is opened, the captains ought to be so much under the influence of their admiral's methods of attack and his intentions that signals cease then to be necessary for their guidance."

I have only, in finishing, to emphasize how chimerical it would be to wish to make war without taking risks. War is a game in which there is no more certainty of winning than there is in any other less serious. *"Who risks not, gains not,"* says an old proverb.

If one does not wish to take the chance of losing, there is but one way, and that is not to play; yet when the question is war one often is obliged to play despite himself.

Therefore is it not infinitely more reasonable and more wise to learn to play well that game? Thus will the chances of loss be reduced to a minimum.

On September 14, 1804, Napoleon wrote: *"All the over sea expeditions which have been undertaken since I am at the head of the government have failed, because the admirals saw double and found, I know not where, that war can be made without running any risks."*

Suffren and Nelson, in their correspondence, have also made known to us their ideas on this subject; they are worth meditating upon. That is why I do not think I can better conclude all that precedes than by recalling one of Nelson's professions of faith which I have already quoted: *"I should very soon either do much, or be ruined. My disposition cannot bear tame and slow measures,"* wrote the most illustrious of English admirals, after the battle of March 14, 1795, against Admiral Martin's fleet. These words contain a whole program.

CHAPTER VII.

PROOF OF THE EXISTENCE OF A BODY OF FUNDAMENTAL DOCTRINES; OPINIONS OF MILITARY AND NAVAL WRITERS.

The conclusions of the preceding chapter, wholly drawn from the impartial study of military history, derive their value from the experimental method which furnished them; they are therefore self-sufficient. But the question is too important and far-reaching for me to hesitate to increase their persuasive force by arguments borrowed from the most clearly competent military writers. In thus depending upon *authors* to justify my own opinions as to the general teachings of great wars, I anticipate the objection which could be made to me of having chosen among the facts and of having examined them from a somewhat too personal point of view.

And just as it seemed to me beneficial to study some great examples of land wars before taking up naval wars, so I shall first pass in review the ideas formulated by some military specialists and then finish with naval authors.

This general method is once again legitimate, for there is really but a single and unique doctrine of war. If we will only reflect upon the subject of war, we will recognize, in fact, with Clausewitz, that it is nothing but the violent procedure by which one seeks to compel the adversary to yield to one's wishes. To obtain this result, it is necessary to call upon *all* the forces at one's disposal in order to make the greatest possible effort. Thenceforth, those various forces, military, naval, moral, etc., appear but as different means of attaining a single object; there can therefore be but one single strategy, and every conception which tends to establish a distinction between the utilization of military forces and that of naval forces, in a word to differentiate naval strategy from military strategy, is purely arbitrary. This principle of unity extends from strategy even to tactics; infinitely more varied in details (for it necessarily feels the effects of the incessant developments in weapons, as we have had to state on many occasions), nevertheless tactics also obeys unchangeable laws.

JOMINI.

In Jomini's eyes, the art of war is wholly contained in the principle of the quest of superiority of forces at a decisive point. The objective of strategy is the concentration of the bulk of one's forces upon a point of the theater of the war, just as in the theater of active operations tactics endeavors to bring the bulk of one's troops to bear upon a weak point of the field of battle.

For him likewise, the offensive is in its general principle advantageous. It exercises a preponderant influence on the morale of armies; it is beneficial furthermore from the advantage which the pursuit of a well determined object gives. If this writer, nevertheless, seems to attribute to the defensive method a partial superiority because it gives the choice of the *place* of operations, it is on the express condition that it be *active*, for he explicitly condemns every passive form of the defensive. But what then is the active defensive; that is to say the defensive which contemplates attacking at a favorable moment, if not a particular form of the offensive?

"A state attacked by its neighbor," says he, *"which claims ancient rights over a province, rarely decides to cede the latter without fighting; and from pure conviction of the reality of its rights it prefers to defend the territory that is demanded of it, which is always more honorable and more natural. But instead of remaining passively on the frontier awaiting its aggressor, it may suit it to take the initiative or offensive."*

He says likewise: *"Let us recognize that a State does better to invade its neighbors than to let itself be attacked."*

And in this connection, it may not be useless to explain that in forcibly advocating the principle of the offensive, I have never meant to advise blind attack, head down, under all circumstances and in all places, but rather the aggregate of well-planned active operations, directed against the enemy's weak point; and this requires of necessity preliminary profound study of the latter's military constitution. Finally I have wished above all to contrast the fruitful method of action with that of resigned waiting, which leads surely to defeat. This is Jomini's idea, which he expresses in the following manner in the chapter on tactics entitled "Of the defensive offensive": *"We have already pointed out, in speaking of strategic operations, all the advantages which the initiative gives; but we have recognized at the same time that in tactics the*

one who waited could turn all these advantages to his own account, by a timely change from the defensive to the offensive. A general who awaits the enemy like an automaton, without any other plan than to fight bravely, will always succumb when properly attacked. It is not so with a general who waits with the firm resolution at the proper moment to fall upon his adversary in order to regain the moral advantage which comes from an offensive movement and from the certainty of putting one's forces in action at the most important point, which is impossible when keeping strictly on the defensive."

He equally proclaims the necessity of an army's possessing a base of operations, from which will come to it the re-enforcements and supplies of every nature indispensable to the maintenance of its vigor, and which is the support of its offensive action. This base is not always single; it can and ought to be completed by the organization of secondary bases, in proportion as the offensive operations of the army separate it from its principal base.

We have already seen, in studying the events of the Russo-Japanese war, the application which the Japanese fleet made of this excellent principle laid down by Jomini. Certainly the arsenals of Japan might have been thought near enough to the center of naval operations, and yet Togo did not hesitate to adopt on the Korean coast a base in more immediate contact with what was going on. And since we are alluding to a naval example, it is of interest to note the formal condition put by the general whose military ideas we are now discussing upon the adoption of the sea as an army's base of operations. He states, in effect, that the concomitant necessity of command of the sea is a somewhat disadvantageous condition.

It seems difficult to reproach this doctrine, from the pen of such a man, with having been inspired by the necessities of a cause or a theory; it adds remarkable force to all that I have already insisted upon in the exposition of the situation of the opposing sides at the beginning of the war which has just taken place in the Far East. It also puts in relief how much the Japanese, in contradistinction to their adversaries, were permeated with the fundamental principles of the military art.

General Jomini, moreover, did not pretend to compress the theory of war into a sort of abstract formula applicable to all cases; very much to the contrary he regarded war not at all as a

science based upon more or less ingenious mathematical speculations but as a drama with all the passions, all the sublimities and all the weaknesses which attend that crisis of humanity. It would be difficult to indicate more clearly the considerable part played by moral forces, interpreted broadly, in the progress of the destinies of a war. At each stage of the Russo-Japanese war we could in fact see the scenes and acts of this poignant drama in the course of which the moral weakness of the Russians furnished us with living examples much more convincing than those taken from fiction.

This moral conception of war is worth remembering, for it implies the indispensable knowledge of the enemy's state of mind, of his degree of preparation for the struggle, and thus shows the close bond which, at the outset of any strategy, ought to exist between the general policy of a country and its purely material preparation for war.

Analyzing Napoleon's system of war, the definition of which can be summed up in three words—speed, battle, rest—Jomini thinks that this system will never be abandoned. I may add, for my part, that it owes its wonderful vitality to the excellence of the principles upon which it is based; though Napoleon knew how to make a marvelous use of them, they really were not exclusively his own. We have seen, although a little too briefly, that all the great captains have conformed to them while adapting them to the resources at their disposal. The practical means of action have undergone radical changes, as a result of incessant progress in all branches of human activity, but the same essential laws belong to all ages.

In his fine book "*Précis sur l'art de la guerre*," Jomini establishes minutely all the divisions of the arduous task which falls upon the General Staff; preparation of material, orders of concentration and of route, elaboration of the plan of campaign, determination of the enemy's position, drawing up instructions for the march and rendezvous, direction of reconnaissances, centralization of information of all sorts relative to the enemy's movements, etc., all this together is one of the most overwhelming duties which men can be called upon to do.

And who then, in presence of this program, still so vaguely sketched, could still maintain that its consideration can be postponed till the moment of execution? The part played by chance

is, in the very nature of things, already too great in the course of war for the attempt to restrict it not to be made. And they would truly be criminal in their blind ignorance who would persist in seeing the only remedy for all these difficulties in the convenient formula, "*trust to luck.*"

It was quite thus that Jomini thought when he wrote, as the conclusion of his book, the following lines: "*If some prejudiced military men, after having read this book and studied attentively the detailed recital of some of the campaigns of great masters, still persist in maintaining that there exists no principle, no practical rule of war, we must be satisfied to pity them and to reply with Frederick the Great's well known saying, 'A MULE WHICH HAD MADE TWENTY CAMPAIGNS UNDER PRINCE EUGENE WOULD BE NO BETTER TACTICIAN FOR THAT.' Correct theories, founded upon true principles and justified by facts, are, in our opinion, when taken in conjunction with the lessons of history, the veritable school of generals. If these means do not make a great man, since great men are always self-made when circumstances favor them, they will at least form generals skilful enough to be perfectly fitted for the second rank under the orders of great generals.*"

CLAUSEWITZ.

General Clausewitz in his turn shows us the immense part played in war by moral forces under all their aspects, passions, hates, fear. The most recent war has already given us most convincing proofs of the legitimacy of this conception.

For him, the immediate object of war is to strike down the adversary, and this object exacts the use of the maximum forces with a view to the greatest effort. The sole efficient means of war is battle; that is the essential thing, what I have already several times called the *principal objective*. "Battle," says he, "*constitutes the whole action of war. In battle the destruction of the opposing forces is the means of attaining the object, even though the battle does not actually take place and the threat of it suffices to bring about a settlement; for in that case the enemy manifestly retires only on the supposition that, if he accepted the struggle, he would inevitably be destroyed. In war, then, the destruction of the armed force of the adversary is the corner stone of all combinations In speaking of the armed force of the adversary,*

we ought expressly to observe that nothing obliges us to limit this idea to physical force; but rather that everything makes it obligatory upon us to include moral force also, for the reason that these two forces are constantly mingled even in the smallest details of the act of war, and consequently are inseparable."

To form a fair judgment of Clausewitz's work, it should be read through, and it would certainly be a profitable task, but such a complete study would greatly exceed our limits; yet it alone enables his true military thought to be extracted from the mass of his literary labors. It is thus that, to every superficial reader, he seems to accord all his preferences to the defensive, which he regards as a superior method in so far as it is applied to the conservation of one's possessions, territories, forces, etc. A more complete understanding of his ideas leaves no room for doubt, on the other hand, as to the exceptional value that he accords to the offensive. Let this be judged from the following extracts:

"Outside of the destruction itself of the armed forces of the adversary, the different objects that it can be proposed to attain in war are positive objects, and, consequently, the offensive alone is capable of pursuing them." It is not less necessary to understand what Clausewitz means by the defensive. *"Passivity being absolutely contrary to the nature of war, this definition (resistance) can only be applied to the defence when the latter is regarded from a quite general point of view Resistance then can only be relative, and the defence, frequently changing its general form, ought to pass, in the course of the action, first from parry to parry and thrust, and then, as the latter gives opportunity, to ATTACK. One is on the defensive in a fight when one awaits firmly planted the shock of the enemy upon the point where one has taken his stand; in a battle, when one waits for the hostile army to come to face the positions that one occupies and the fire of the troops that one commands; finally, in a campaign, when one awaits the invasion of the theater of war of which one has made choice. Thus far the defence is in nowise in contradiction with the nature of war, for one can find his advantage in awaiting the enemy on a field, in positions or in a theater of operations the resources of which one knows and which one has studied and prepared in advance. But when resistance properly so-called has done its work, and because, to retain his part in directing the conduct of the war, the defender must necessarily return to the*

attacker the blows received from him, there immediately results an offensive action on the part of the defence itself."

"The defensive action therefore comports with offensive acts in each of its degrees, whether it is a question of fights, of battles or of campaigns. In a defensive battle, for example, one's isolated divisions can be employed offensively. This form of warfare, therefore, need not be looked upon as a shield, but rather as a weapon suitable for thrust as well as for parry."

And to still better define the expressions, already so clear, which precede, I will add this further quotation: "*A war in which one would be satisfied to use victory to repel the enemy, without ever attacking him in turn, would be as foolish as a battle the arrangements of which were made with the sole idea of an absolutely passive defence.*"

Thus we find in these lines, on the one hand, the formal condemnation of that form of resigned waiting in which the defensive is most frequently conceived and which, in the history of all epochs, has never brought forth anything but defeats; and, on the other hand, the clear meaning, without any possible equivocation, which must be given to the expression defensive from the pen of this learned military writer. Thus understood, there is no contradiction with the conclusions which I have already myself developed; for the defensive, defined in this manner, is only a variety of the well conceived offensive. Better still, we can make an immediate application of it to the example of Tsushima. The "offensive," in the broadest sense of the word, permitted to the Japanese, under the threat of the speedy arrival of the Second Pacific Squadron, a great variety of solutions; it is this which explains why, from the day that fleet set out, the most fantastic projects were attributed to the Japanese Admiralty. The squadrons of Togo and Kamimura were made out by the imagination of news writers, on several occasions, within sight of Madagascar, then successively in the Strait of Malacca and that of Formosa; I omit the incident which happened in the Channel on the Dogger Bank. All these fleeting visions came from the very clear perception, forced upon the world by their previous operations, that the Japanese sailors had adopted the offensive as their line of conduct. To attack Rozhstvensky's battleships on the shoals of Hull during the night, with torpedo-boats, in another fashion than in the hallucinations of the Russian sailors; to surprise them off

Nossi-bé, at the entrance to the China Seas, or in the bay of Camraigne, or finally in the Formosan Straits, would have been just so many offensive acts. But to wait for them at the passage of the Korean Strait, in proximity to the Japanese bases of operations, in that very way having available the maximum of means of action, fighting ships, torpedo-boats, rapid communications, etc., was also the offensive in the sense given to it by Clausewitz, and the latter course, in the case considered, was incontestably superior to all the others. By going to meet his adversary, whether at Singapore or even only on the coasts of Annam, Togo would only have weakened himself.

This example, corresponding to the definition contained in the preceding quotations, throws a special light upon the value which should be exactly assigned to the idea of the offensive. Clausewitz adds further: "*The essential characteristics of offensive warfare are rapidity, decision and continuity of action,*" and also "*The greatest promptitude should be used in operations. Every loss of time, every useless detour brings about a waste of forces and is consequently a strategic error.*"

Thus once more is the high strategic value of speed proclaimed.

"*In tactics as in strategy, superiority of numbers is, of all principles, the one which most generally gives victory.*" Thus does the Prussian general express himself upon an important point in the study of war, and he adds: "*The greatest possible number of troops should be brought into action at the decisive point. Such is the first principle in strategy.*"

And such is really the first act of war; but here it is indispensable to bring to notice that the greatness of this first effort depends entirely upon governmental action. This emphasizes the close tie which binds the initial strategy to politics. If, through the errors or the weakness of the latter, this so important opening effort is insufficient, if, in a word, absolute superiority of forces cannot be realized, it becomes necessary to endeavor to obtain, by surprise or by skill, relative superiority at the decisive point.

We have already seen the prime importance which Clausewitz attributed to battle; he defined it: "*Strategy's instrument for attaining the object of the war.*" An opinion as weighty as his adds new force to the conclusions I have already drawn from the summary study of the great wars of the past.

WAR ON THE SEA.

We borrow from him one last extract, which equally confirms what we already know: "*The battle at last gained and the victory won, it is necessary at once, without halt, without change, without reflection, without even taking breath, to hurl oneself in pursuit of the enemy, to attack him wherever he resists, to seize upon his capital, to destroy his armies of relief and to overturn all the supports of his power.*"

Here we find again the idea that victory cannot be complete if it is not followed by the irremediable destruction of the enemy; without which it is but a half measure and does not satisfy the ends of the war.

It is not without a lively regret that I find myself compelled to leave the very captivating study of Clausewitz's works; but our space and time are so short that it is indispensable to limit myself. Yet I am unwilling to finish without making a brief allusion to the interesting chapter which treats of the theory of war, and more particularly of the knowledge demanded of the commander-in-chief: "*The general-in-chief,*" says he, "*does not acquire this varied knowledge from formulae and from scientific processes; it requires on his part special aptitude, supported by the judicious observation of things and a judgment trained by the events of life.*" He says again: "*Study and meditation can produce an Euler and a Newton, but experience of life and its great teachings are necessary to form calculators such as Condé and Frederick.*"

These words, struck with the die of good judgment, are wholly worth remembering, above all in our times when there are revealed sad tendencies to misconceive the simplicity of the object and means of war, as well as its purely artistic and personal quality; to see in it I know not what false science of a dry and arbitrary character. For my part, I chose, without the shadow of a hesitation, Clausewitz's concept.

RUSTOW.

Another and more modern foreign military writer, Rustow, is not less affirmative.

Under the title "*Fundamental Laws of Strategy,*" he has collected a certain number of maxims which it is well to ponder.

"*The fundamental laws of the art of commanding armies stand clearly forth from all the historical facts of war, and it will always be so as long as the nature of our means of war has not wholly*

changed." After this statement of a principle already too well known to us not to be accepted without reserve, he expresses his maxims as follows:

In the first place, *"armies are the principal instrument and the principal objective of strategy, the true representatives of force in war. To develop as much as possible the activity of his own army and to restrain the activity of that of the enemy, to maintain his army and to destroy the enemy's, such are the dominating ideas that should direct the general-in-chief. Battle is the culminating act of war. It commands and determines all other operations of war."*

Thus there is set forth anew, with perfect clearness, the idea of forces and the principal function devolved upon opposition to those forces, that is to say upon battle. Here now is how the elements of equilibrium of this antagonism of forces are to be established.

"Victory is assured by superior forces; by the choice of the favorable moment, that is to say of the moment when one is strongest and the enemy weakest; by the choice of the suitable place, that is to say of the place where one is strongest and the enemy weakest. Success is further assured by a clear and precise conception of the result to be attained; by the intelligence which directs towards a single object all one's material forces and which advances straight towards it without deviating; finally by an energetic will which never loses sight of this object and never abandons it without necessity."

The very recent examples of the Russo-Japanese war demonstrate the excellence of these last principles; they are in some sort the illustration of them. Superiority of forces at the point where the Russians were weaker, choice of the most convenient place, clear and simple conception of the result to be attained, tenacity in the execution of the plan of action, all these conditions united assured success to the Japanese without requiring the presence of a man of genius.

This would suffice to prove, lacking other proofs, that there truly are, as Rustow, as well as Clausewitz, Jomini and so many others, has declared, a certain number of fundamental laws which cannot with impunity be ignored.

Superiority of force must first be sought in superiority of numbers. If the enemy is not outnumbered absolutely, nevertheless

he may be relatively, and it is necessary to seek to outnumber him at the point where the campaign is to be decided, that is in the theater of war, in the battle and on the field of battle, at the point where success is most easily or most certainly to be won. The possibility of securing a relative superiority results from the concentration of our own army and the division of that of the enemy. The union of our army is therefore the first rule of war; it may undergo modifications, but it never ceases to exist. If great armies cannot be kept united on a point or on a line, it is nevertheless desirable that the bulk of the army or the greatest possible part of it be united on the decisive point at the decisive moment."

These ideas confirm those which we have already derived from historical examples; they give special value to some of them as well as to the deductions which can properly be made from them.

Among these there is one of which the recollection is particularly vivid, and I recall it the more willingly because it is of such recent date. I allude to the fundamental error committed by the Russian government at the beginning of the last war, and which I have already had occasion to explain.

It now appears to us as in direct opposition to the principle laid down by Rustow. The theater of this war was certainly a vast one, one of the vastest in military history, for it embraced at the same time the seas of China and Japan, Korea and wide spreading Manchuria, without counting the Siberian steppes, Russia and Japan. But the theoretical numerical superiority of the Russians could have no value unless it was realized at the *point* of the immense theater where battle was to be delivered. As we know, neither on land nor at sea, could this result ever be achieved by the Russian General Staff, and that beyond anything else explains the persistent defeat of the Russian armies.

On the sea the lesson is the same. To satisfy the principle laid down by Rustow and his predecessors, it would have been necessary to concentrate in Far Eastern waters and at Vladivostok, that is to say on the probable battle ground, naval forces superior to those of the Japanese, and it was useless and could only be useless to send there *successively* fleets which, by their union, would have been of sufficient numbers to assure this superiority. There is no doubt that the junction *before the war* of the Port Arthur, Vladivostok and Rozhestvensky squadrons, in Japanese waters, would have given an incontestable superiority to the Russian naval

forces. Their separation, on the contrary, was to bring about their defeat in detail. This practical lesson throws a vivid light upon the strategical principle enunciated by Rustow, a principle already set forth in our previous conclusions, and which the Japanese navy applied from the beginning to the end of the late war with a remarkable understanding of its requirements.

Bearing on the second proposition, which relates to tactics, and which prescribes seeking superiority at the decisive point in battle, there are many experimental facts. Nelson satisfied this principle when at Trafalgar he smashed the center of the French-Spanish fleet by throwing upon it the whole weight of his own and Collingwood's squadrons. Tegethoff also was inspired by it at Lissa when he threw the mass of his forces upon the leading division of the Italian squadron. We have seen Ito also, in the battle of the Yalu, make the weaker right wing of the Chinese give way; and finally Togo, at Tsushima, turn the head of the Russian squadron.

In each of these cases, the victorious chief knew how to find the weak point, *the flaw*, in the hostile forces, and by concentrating the whole effort of his own forces on that decisive point to assure victory.

"With equal forces, an army will be so much the more formidable as there is harmony between unity of command and independence of parts, in such a way that these fractions have as much independent life as is possible without weakening the power of the commander-in-chief. The best method of arriving at this result is a proper subdivision of the army so that these fractions are neither too numerous, nor too strong, nor too weak . . ."

Here again we have only the embarrassment of choice in finding famous applications of this maxim. Nelson, dividing his squadron and entrusting half of it to Collingwood, certainly had in view giving to the constituent elements of his fleet the greatest possible life. The example of Tsushima is still more striking, for on the one hand freed from the absorbing influence of a great genius like Nelson, who forcibly seizes upon and monopolizes our attention, on the other hand it applies to occurrences contemporary with ourselves, and employs instruments such as we use ourselves. The fighting force of the Japanese was composed, I remind you, of four battleships and eight armored cruisers, in reality twelve units which from the beginning to the end of the battle played identically the same rôle and which, consequently,

WAR ON THE SEA.

we have every right to comprise in the general category of fighting ships.

But it is easy to imagine the great variety of combinations by which this line of battle of twelve ships could be grouped in different ways. Between the two extremes, that is the long column of twelve ships and a series of independent divisions each of one or two units, there was evidently room for others giving to the totality more flexibility, activity and life than the former and less scattering of command than the latter. And finally, among them, one could be found uniting the two requirements with the maximum harmony. This was the one adopted by Togo, who, in dividing his fleet into two squadrons of six ships, each under the command of a chief, obtained under his sole direction all the advantages of a well manœuvring single column with more precision and vigor in the execution of the movements. He realized "*harmony between unity of command and independence of parts.*"

Rozhestvensky, on the contrary, with his crowding and unmanageable squadron, did not possess this harmony. And this contrast very well brings to view the interest which the idea of a "naval army" offers.

Thus we come anew upon the intimate bond which, in the field of principles, closely connects all the manifestations of the military art; there is really only one military art, since we have been able to make such a direct application to naval questions of maxims suggested to an author by matters exclusively concerning armies.

"He who has a positive object in view can with the greater facility bring superior forces to bear upon the decisive point. He who waits, on the contrary, for the enemy to take the initiative, makes this problem the more difficult for himself. In fact, beside the principal and positive object that we chose, all others are secondary, and the forces which are devoted to them will be in the same proportion. But if we allow the adversary to chose, then several contingencies will seem to us to have the same value, and we will divide our forces equally to oppose these equally important contingencies. This it is which above all makes the offensive superior to the defensive."

These lines apply perfectly, although they were not so intended, to the case of Cornwallis, who, distracted between the necessity of blockading Ganteaume in Brest and the desire to re-enforce

Calder to allow him to paralyze Villeneuve in Ferrol, committed the grave fault, *the noteworthy folly* as Napoleon called it, of dividing his squadron. This fault might have cost him dear, with more resolute adversaries than the French admirals of that period were. The English admiral lost sight of the fact that by pursuing several objects at the same time he weakened himself everywhere; and that the primary object ought to be to prevent the escape of Ganteaume, the only contingency which would give to the French fleet superiority, even momentarily. Again, and perhaps with greater amplitude, we can make clear the application of this principle to the carrying on of the late war by the Russians. As a whole, as well as in detail, the Russian government made a passionate effort to accomplish the impossible task of repulsing all attacks at once; in the initial conception, not understanding the preponderant importance of naval operations, it wished to repel on the one hand the Japanese attack on land and to resist on the other hand their attack on the sea. Reason itself, on the contrary, as I have explained at length, would have imposed the exertion of the greatest effort on the sea. In details, the scattering of the naval forces at Port Arthur and at Vladivostok, and the isolated action of Rozhdestvensky's squadron, all at the choice of the adversary, could only produce deplorable results.

As far as the principle of the superiority of the offensive is concerned, we see that this is affirmed no less clearly by Rustow than by the preceding writers; and he still better expresses his idea when he says: "*For the defensive to be as strong as possible, all the preparations must be directed by an offensive idea.*" Is not this the very thought already expressed by Clausewitz; and in view of the remarkable agreement between the propositions advanced by the most noted military writers, is it possible to believe this accord to be the result of chance? For my part I do not believe it, and I gain here a new conviction of the sure existence of certain fundamental laws of war, which we have already derived from the facts of experience, and to which the concordant testimony of authors adds a great value.

"Victory is completed by pursuit. After his defeat the enemy needs rest to reassemble and repair his forces. This rest is forbidden him if he is forced to fight or to march rapidly in order to avoid fighting, perhaps under the most disadvantageous conditions. Thence follows the rule that the conqueror should pursue

the conquered without delay, with the greatest possible speed and energy."

The naval battle of August 10 will not be noteworthy in history, because the Japanese did not amplify their success by an implacable pursuit of the retreating Russian ships; that of Tsushima will be remembered as one of the greatest disasters, if not the very greatest, which has ever occurred on the sea, because pursuit, this time persevering, finished what the battle strictly so-called began so well on the field of action.

"In any operation it should never be forgotten that the shortest road to reach the enemy has a marked advantage over the longest." This is the affirmation of the value of speed.

"The plan and preparation of an enterprise, whatever it may be, are never the act itself; and it is to the act alone that are due success and the diminution of the enemy's success. The plan of every enterprise ought to be made in advance. This is an indispensable condition of arriving at a predetermined end; but, beyond this end to be attained, a plan ought to take account of the nature of the means and of the existing circumstances. The first requisite of a plan of war is the greatest simplicity; for a simple plan is easier to conceive and to execute than a complicated plan. The second requisite of a good plan of operations is to limit the number and scope of those operations, to lay them down according to the known data, with room for the action of unknown quantities, and allowing sufficient freedom to the direction of the operations to enable the plan to be modified in the course of its execution, if circumstances require it."

In spite of their great interest, I must here cease to quote, since I am bound to limit myself. It would, however, be difficult to assemble, in a style more simple and at the same time more precise, as great a number of essential truths as are contained in the preceding lines. Formal condemnation of the method of chance and improvidence; affirmation of the necessity of knowing in advance what it is desired to do, by having a fixed plan of action limited by the means at one's disposal; the elasticity indispensable for taking account of fortuitous occurrences; prohibition of paralyzing the initiative of the commander-in-chief, etc.; all is to be found there. And what above all else ought to be remembered is the very formal declaration of the simplicity which should govern in

the preparation of operations. Everything is simple in war—plan, conduct and means.

This merit of simplicity appears to Rustow to be of the first order, for he says further :

"Simplicity and independence of plan (independence relative to the plans attributed to the enemy) are principles of the military art."

And it is always in this same order of ideas that, speaking in a general way of the qualities of generals, and in particular of Mack, the Austrian general, *"well informed, but who only knew how to draw clear and neat figures upon which he spent much labor, and who made of the general a draftsman,"* he concludes : *"This love of geometric figures is the surest sign of lack of aptitude for chief command. The general ought to reckon with forces; the forces are represented by lines and directions, but they are not those lines themselves."*

I shall refrain from weakening by any comment the scope of this very sane comprehension of the affairs of war. I limit myself to expressing the wish : May we make this doctrine our own !

VON DER GOLTZ.

Another contemporary expert, Von der Goltz, justly esteemed, estimates in these terms Napoleon's rôle : *"Our actual point of view depends in great part upon his principles. He recalled to military men a thing which Frederick had already taught them, but which they had forgotten, namely that it is above all important to destroy the hostile forces; that battle is what decides war."*

In a remarkable chapter on "Conditions of success in war," this same writer states a certain number of principles, among the most important, which it is well to pause to consider.

"The first of the conditions of success in war is POLICY." This proposition is certainly not one unknown to us. We have so many times repeated, under the most various forms, that military action is inseparable from politics, that it is almost speaking a truism to say it again, so, in place of a formal argument, I prefer to call attention to some striking and quite recent examples of this close dependency.

Spain lost Cuba through the blindest and most improvident of policies ; blind, because, beneath the rebellious outburst of the islanders, the Spanish government failed to devine the hidden

WAR ON THE SEA.

action of the United States; improvident, because, disdainful of the storm which each day grew blacker, Spain was unwilling to make any effort to prepare for war and to sell dearly to that nation the most beautiful pearl of her colonial crown.

How much more foolish still perhaps was the Russian policy in the Far East. To undertake economic expansion, to stretch like a long arm an iron way towards countries already coveted by neighbors as powerful as ambitious, to begin as at Dalny a great commercial enterprise without developing along with it the organism of forces alone capable of imposing respect and guaranteeing the free flowering of that work, was to labor for the foreigner and to follow a detestable policy. Clausewitz had already very well explained, moreover, the intimate relationship between war and politics.

This latter alone designates the end which is to be sought and the general means of attaining it, and presides, especially in time of peace, at their preparation. This justifies Von der Goltz's phrase: "*Without a good policy, it is not probable that a war will turn out fortunate.*"

Moral force has no less importance in his eyes, and he even accentuates the opinions of his predecessors in this excellent maxim which I have already mentioned: "*It is essential that the commander-in-chief, as well as the troops, have the FIRM WILL TO CONQUER.*" The memories of recent wars are too present to our minds for us not to understand the deep truth expressed by the preceding lines. The lamentations of unhappy Cervera, an echo of those further off ones of unfortunate Villeneuve, the cowardice of Ouktomsky, the moral weaknesses of Enquist and Nebogatoft, without mentioning the deplorable state of mind of their men, point out all these leaders for defeat. How could they hope for victory when in advance they despaired of it.

We are now going to find, from the pen of the German author, the affirmation of certain fundamental principles already known: "*The first object, and the principal one, towards which the movements of armies are directed is the hostile army.*" He thus assigns the great first rôle to battle, of all the operations of war. "*He who has on his side superiority of numbers has a great chance to triumph over the adversary.*" But after formulating this maxim, he is careful, being a man who has cultivated his knowledge by the

constant study of great wars, not to forget to specify what is to be understood by the expression "superiority of numbers."

He explains first that it cannot be a question of comparing a numerous but poor army with a small but good one; numerical superiority as between two armies of equal quality is what is meant. This moreover is in accord with common sense, and with arithmetical reasoning, which only admits into its calculations units of the same kind; and it would even seem idle to repeat these commonplace truths if in our time still they were not contested à propos of naval problems.

The time has but lately gone by when a Minister of Marine, to justify the construction of armored cruisers of reduced size, relied upon this more than doubtful aphorism, that two weak men are worth as much as one strong man. Beyond its lack of precision, for wanting a measure it is difficult to understand what is exactly meant by weakness or by strength, both essentially relative, this statement contains another capital error; it is wholly sentimental, and we ought to reject everything which is not based upon the experience of war. It is to this aphorism, moreover, that we owe a type of ship very happily limited to three examples, and against which there was very properly an almost unanimous opinion. So true is it still that the principles of the military art apply admirably to our apparently more special field. We are therefore in agreement with Von der Goltz when he limits the application of the idea of superiority of forces to forces of equal *unit* value.

After having conveyed this needful precision in the definition, the German military writer adds: "*The first and main principle of modern tactics is THE GREATEST POSSIBLE NUMBER OF MEN MUST BE BROUGHT TO THE PLACE WHERE THE DECISIVE BLOW IS TO BE STRUCK.*" And we find once again as always the true meaning of superiority of forces in war.

We are going to see again likewise, from Von der Goltz's pen, many other ideas which are familiar to us; those which follow are specially interesting for us.

"*To make the fullest use of all the means at one's disposal is the principle of war at the present time.*" These words bring out clearly the plurality of means of action in war which we have already had many occasions to remark. Accordingly the same author lays stress upon the importance of wealth and of the factor *money* among the conditions of success, and he adds: "*Whoever*

WAR ON THE SEA.

can sustain a war for a long time possesses an important guarantee of final success." The undoubted value of this principle can be brought out by historical examples. In the first place, it may be recalled that though England, in her implacable struggle against Napoleon, finally succeeded in conquering him, the colossal military forces of the Emperor, directed by the greatest genius in war that humanity has known, were definitely broken in 1815 at least as much by the financial power as by the material forces of Great Britain.

Again, in the late war, at the time of the signing of the treaty of Portsmouth, a cloud was beginning to be seen forming on the political horizon, disquieting to the Japanese, whose financial embarrassments, known to every one, threatened to compromise their magnificent military exploits. Nothing could show better than this very recent example the power of money. *"The possession of money, it is true, is not alone to be taken into account, but also the greater or less facility for making use of it. States which, in case of war, keep open their sea communications have ways of using their credit quite other than have those whose ports will be immediately blockaded. The former will moreover be able to have recourse to foreign industries for the armament and equipment of new armies. Without this last resource, the government of the National Defence would never have been able, in the late war, to constitute the formidable armies which astonished the whole world. If, in 1814, Napoleon had had this resource, affairs would have turned out differently. The Southerners, in the American War of Secession, succumbed in spite of their military superiority, because their communications with the sea had been cut. The control of the sea therefore contributes indirectly to strengthen a State, even if its fleets are not able to give direct aid to its army."*

It is singularly suggestive to see a writer deeply imbued with military doctrines, the undoubted exponent of the controlling idea of the German General Staff, affirm so clearly the very important rôle assigned to the navy, when this is so often misunderstood, not to say denied, in France, even by seamen; it should be remembered that Port Arthur would never have been taken if the sea had been free.

"Though wealth greatly augments strength, it only becomes fruitful if, AT THE PROPER TIME, every sacrifice is made." At the proper time! A world is contained in those three words; all possi-

ble sacrifices tardily consented to could not make up for initial negligences. What would the few millions necessary to prepare a navy strong materially and morally weigh in the balance of Spain's accounts, in comparison with the economic breakdown which came to that nation from the loss of Cuba? Is it possible to compare the eight or nine hundred millions which would have been the cost to Russia of the eighteen battleships necessary to insure the success of her policy in the Far East with the thousands of millions that an unfortunate war has made her lose, without counting the loss of her commercial influence in Chinese waters?

In a more familiar field, an insurance premium costs very little in comparison with the accidents, fire, death or injury—against which it is intended to protect private interests. What then is preparation for war if not the premium of insurance against the risks of war, the only efficient one, I must say, that has thus far been found, the only one also, I firmly believe, that ever can be found. It is truly so that the sense of the expression “at the proper time” must be understood, and it cannot be too often repeated that sacrifices agreed to in order to have a powerful army and navy, military forces in a word capable of imposing respect upon all, are a sure economy. The painful memory of the loss of two provinces and the ransom of five milliards is enough to convince us who are Frenchmen of the great importance of preparation for war. May that hard lesson serve us and teach us also to be prepared as regards naval war!

I have already had occasion, in the preceding chapter, to cite an opinion of the author we are now considering on the subject of the offensive.

After having considered the comparative advantages of the defensive and offensive, as well as their disadvantages, with arguments that we already know of, he finally pronounces very categorically for the latter, of which he says: “*The offensive requires a greater activity than the defensive; that alone is a great gain, for of two adversaries otherwise equal, the one who is the most active will conquer.*”

The question here is definitely as to the influence of the factor “speed.”

That which gives exceptional value to the military writers whom we have just reviewed, and which has led to this very extensive consideration of their opinions, is that those opinions are

the result of profound studies of the experiences of great wars, and, as far as the two last are concerned, particularly of that of 1870, which will long remain in history as the model of the triumph of methodical preparation for war.

Among authors who have more especially devoted themselves to the study of naval warfare, the choice is more restricted; not that there is not an abundance of naval writings, but quality is rather rare; at least that which we ought to seek for, that is sincerity of convictions based *solely* upon the experimental lessons of war. Before Tsushima, for a century there had been few or no examples of naval battles truly worthy of the name; perhaps this poverty of facts exclusively naval is the necessary explanation of the result that so many writers have ridden *their hobbies* instead of endeavoring to free themselves from prejudices and generalize great principles.

MAHAN.

Mahan won his very great and deserved fame by breaking away from the sentimental method, which opens the door to every sterile discussion and never puts an end to one of them.

It is to be understood that I cannot pretend to present in a few pages the complete work of the eminent American writer; all of it should be read and re-read, and here I must limit myself to an explanation of his theory. This appears in his first pages, when, after having recalled the respective advantages formerly attributed in battle to the windward and leeward positions, he remarks that henceforth it is *speed* which will permit taking the most favorable position. It is worth while in this connection to recall the precise terms by which he indicates what should be understood by superiority of speed: "*This does not mean only a squadron whose individual ships have superior speed, but also one which has the greatest uniformity of action through the homogeneity of its units.*"

In this sentence two fundamental principles of tactics are laid down: the importance of speed, and the absolute necessity, so many times recognized, so often unaccomplished, of homogeneous forces.

These two principles call for some comments. In the quest of speed a chimerical object has only too often been pursued, one in all cases unprofitable, and which quite a large number of writers even of our time define thus: the possibility of accepting or refusing battle. We already know what is to be thought of this wholly

WAR ON THE SEA.

erroneous conception of war, which tends to reduce battle to the part of one solution, among many other very different ones, of the problem of war, while it really is the only solution. It is therefore indispensable to dissipate any possible misunderstanding upon this important point and to explain how the following sentence of Mahan must be interpreted: "*The power to assume the offensive or to refuse battle . . .*"

Whoever is penetrated with the author's thought can have no doubt on this subject; what he wished to point out is that superior speed allows engaging in battle under the most favorable, chosen conditions, and remaining master of one's conduct. It is truly thus that it must be understood. The power of the guns, the characteristics of the individual ships, carry with them limiting firing distances within which the conditions of the contest are more favorable; the relative position of the sun is also nowadays of great importance. All these advantages which it is necessary to strive to secure in entering upon an engagement, speed alone can give. It was speed that enabled Togo to turn the head of the Russian column at Tsushima; it was speed also to which Ito owed his ability to outflank the Chinese right wing. Napoleon won his most splendid victories by his constant use of speed on the battle field. But this superiority is only real if all the units of the naval force can participate in it; it is therefore essential that all those units have the same speed. That is the proved truth, and a great number of leaders had already announced it in all countries before Mahan. The speed of a naval force is always equal to that of the slowest ship which forms a part of it. If then I insist upon this observation, it is because this eternal truth seems to have been so little understood in France that, even quite recently, the characteristics of a great ship, the *Ernest-Renan*, were modified, in the course of her construction, to give her an increase of speed. Such measures cannot be too energetically condemned, being a veritable squandering of money, seeing that this ship, necessarily forming part of a naval force of slower ships, will presumably not have the opportunity to make use of this excess of speed. The question is too serious for me not to insist upon it. It is too often forgotten that a war ship is of little worth by itself, but is above all an individual in a fleet which, by its assemblage, *alone* constitutes material *force*.

I have too often already affirmed the value of speed, especially from the strategical point of view, for my opinion on this subject

to be misinterpreted ; but it must be well understood that in advocating one or another factor of naval strength, I have in view giving it to the *fleet* and not merely to an isolated ship, an absolutely fruitless result.

It is particularly interesting to seek Mahan's lesson in the critical study of the naval war of 1778. He first explains, with remarkable clearness, the respective situations and aspirations of England on one hand and of the allied powers, France and Spain, on the other, at the opening of that war. The legitimate desire of England to preserve her American possessions logically placed her in a defensive position. The allies, on the contrary, under the sentimental pretence of aiding an oppressed people to secure its independence, pursued well fixed aims of conquest or annexation. Both, besides cherishing the hope of weakening the English naval power and thus taking revenge for past defeats, aimed at territorial acquisitions ; Spain wished to reconquer Gibraltar and Mahon, France had in view the West Indies. These various motives gave to the policy of the Bourbons an offensive character.

This interesting observation of the American author is extremely valuable for us, for it will enable us to define, with a precision leaving no room for confusion, what up to the present moment we have meant by the expression "*offensive*."

I have not wished to speak, in fact, of a political offensive, and to advocate for our country an aggressive attitude of adventures and conquests ; when we speak of naval strategy and tactics, there can be no question of assuming the air of a mousquetaire, fist on hip and rolling eyes. For us the offensive is merely a method of making war, which has given its proofs, and which, on that account, appears to me wholly worthy of recommendation when it becomes necessary to make war, whatever the character of the causes which have brought on war, even should it be purely defensive. A people has the duty not to attack its neighbors, but it has no right not to know how to make war, if it is attacked.

And the observation is the more essential to make because, by a truly disconcerting contradiction, while the political objective of the allies in 1778 was so frankly offensive, the means employed by them in the conduct of operations preserved to the end the defensive character. The English, on the contrary, adopted most frequently offensive action. As may be seen, it was not useless to elucidate this important point.

As Mahan very justly observes, it would have been necessary,

WAR ON THE SEA.

in order to satisfy the objects of the war as conceived by the allies, to seek above all naval supremacy, particularly in the West Indies, in general over the whole theater of the war. Every conquest made without this primary condition could have evidently only a provisional and precarious character ; it could only be considered definitive when the English war flag had disappeared from the seas. The American writer is very right then to say that "*the key of the situation in the West Indies was the fleet.*" The struggle against the English naval forces was truly therefore the *principal objective* ; not only in the West Indies, but also in the Indian Ocean, the only point of the theater of war, as it happened, where the chief of the French naval forces perceived this fact and acted accordingly. The taking of Trincomalee was not in derogation of this principle ; it was made necessary by the urgent need, with a view to facilitating the offensive against the English squadrons, of giving to the French fleet a base of operations which it lacked, and of allowing it to shelter itself during the stormy season of the northeast monsoon. Suffren, with his inspired understanding of the affairs of war, well knew this and chose his point still better, *to windward* of his field of operations. He knew how, moreover, lacking complete command of the sea, skilfully to profit by the absence of his adversary ; this exception is a wonderful confirmation of the rule.

The errors committed by England in the course of this war nevertheless gave the allies fine opportunities. The total naval forces being nearly equal on the two sides *as far as material was concerned*, that is in number of ships, and that to England's disadvantage, on account of the number of points where her interests were threatened, that power committed the error of dividing her forces to make head at too many points, and also the error of attempting, by continual convoys of troops, to retain her American colony under her dominion.

With skilful leadership, the allies had therefore the best chance ; but for that it would have been necessary to break with established traditions and routines ; I ought to say, more exactly, to do what the government as well as the leaders of the two countries were incapable of.

On Spain's side, her obstinate determination to retain her ships near Gibraltar, in the chimerical hope of making that rock fall into her hands, and also the independent pursuit of her personal aims in the Floridas, for example, had an evil influence on the

WAR ON THE SEA.

necessary military work. In the councils of that nation, no authoritative voice was raised to make it understood that the rock of Gibraltar would much more surely become again national territory if the English naval forces which were its sole bond of union with Great Britain were destroyed, and that, by this same preliminary result, the world-wide ambitions of the nation would be satisfied with more certainty.

On the side of France, though there was greater loyalty in the execution of the alliance, there was no greater sense of the true plan of the war. To speak truly, the directing authorities were wholly under the influence of that ill-omened and ancient tradition which placed first among the objectives of war the pursuit of enterprises of annexation or of conquest, or the execution of a mission, and relegated battle to a secondary place.

Thus were found united more conditions of weakness than needful to explain how, possessing in reality superiority of numbers at several points of the theater of war, the allies never had the idea of profiting thereby to beat the English naval forces; thus to conquer command of the sea and to assure in that way the success of all their claims.

Offensive in its proper character, their war was defensive in its execution, and for that very reason fruitless.

THE ENGLISH TRADITION.

Instructed by her own errors in the course of this war of American Independence, England was resolutely to take the offensive twenty years later and to compose thus, from 1798 to 1805, the most glorious pages of her naval history. The examples of Nelson's method, cited many times in Mahan's fine work, although the campaigns of the great English admiral were subsequent to the period which is there specially considered, show with sufficient eloquence, without more direct quotations, the doctrine of the American publicist. It is wholly contained in one simple formula: battle with the enemy afloat.

It cannot be doubted that the actual successors of the English admirals of 1805, and in a more general way the English Admiralty, have piously conserved the tradition to which their country incontestably owes its extraordinary power in the world. I wish no better proof than the following words, taken from an essay of 1898 by Commander Ballard, crowned by the Royal United Service Institution, on the protection of English commerce

in time of war: "*Those who have thought on the matter at all will probably agree that the necessary basis of any protection whatever must be a sufficient superiority in battleships on our part to destroy, capture or blockade in their own ports the main squadrons of the enemy as in former wars, which in itself would constitute the chief source of safety to our shipping, and without which it would be idle to talk of commerce existing at all, . . . unless (the destruction or blockade of the enemy's squadrons be) successfully effected, it would be useless to attempt anything else.*"

"*It obviously follows, however, that the more thoroughly their duty of watching the enemy is performed, the greater this protection will be; indeed, the opinion is apparently held in some quarters that this is all that is required.*"

There is the doctrine faithfully transmitted for a century, and it is the true one. No example could show better than this the striking truth. When interests of any sort are threatened, one can choose, to protect them, between two systems, and only two; either to defend them directly by covering them with a force sufficient to impose respect, or better still to destroy the menace itself. At the risk of appearing to make a comparison a little homely, I will say that if the conditions of our private life obliged us to return home late at night, exposed to the attacks of prowlers, two procedures of self defence would likewise be available for us. We might wear constantly a coat of mail; but it would be equally permissible to supply ourselves with a good revolver, a stout cudgel, or even, in this time of admiration for everything Japanese, to take lessons in Jiu-jitsu, to put the said robbers promptly out of condition to harm us. The second procedure, which is no other than the *defensive offensive*, is assuredly the better; who could say, moreover, that the coat of mail would not have a flaw? In the case of the protection of the English commerce, the immense network of which covers the whole surface of the seas, what protecting bands of ships of war could be great enough not to have flaws?

In Commander Ballard's view, initial protection by the previous conquest of command of the sea is a settled question. So his essay considers only the protection of commerce against the isolated and momentary action of a few cruisers that have accidentally succeeded in escaping the watchfulness of the blockading forces.

This is the same fundamental principle that Lord Balfour adopted, with strong conviction, scarcely a few months ago, when, in the English Parliament, replying to a question concerning the

WAR ON THE SEA.

defence of the British coast, he affirmed that so long as the English squadrons held the uncontested supremacy of the seas there was no need at all to seek a better arm of defence. Oh! I know very well that those who judge superficially, or those who do not wish to see, will not fail to challenge this so English a doctrine on the pretext that the English navy, having strength and numbers, has an evident interest in its adoption. This doctrine is in no way the monopoly of one nation; it is impersonal, and for that reason it compels acceptance. We have seen it thoroughly expounded by military writers, outside of any naval consideration, and finally if the English have adopted it, that is because by it they have always remained victors.

Furthermore, the German generals or writers of the present day, Von der Goltz, Janson, Verdy du Vernois, etc., have adopted this same doctrine and demand, with the Emperor, the construction of a powerful offensive navy.

This conviction imposes itself on our minds with such force that if I revert to the conclusions of these two last chapters I am almost afraid again to have heaped up commonplaces, so evident do these truths appear. In the preceding chapter I allowed the facts of history themselves to speak; in this one I have gathered together the words of the most justly authoritative writers; it cannot then be a chance result that the conclusions are so concordant.

Another thought is worthy of our consideration; if so many illustrious warriors, if so many famous military writers, for a century past and still in our time, have felt obliged to continue to express certain ideas under forms scarcely different one from the other, it cannot be for the vain satisfaction of reproducing them. If they have not feared to keep on repeating them, it is because they had the profound conviction that these truths demand more than a passing and as it were complaisant acceptance, and that they ought definitely to establish themselves in minds with the irresistible force of dogmas.

This result attained permits, and this alone permits, in examining any military situation, perceiving the errors committed at the same time as the appropriate remedies.

THE FRENCH SYSTEM.

I have believed it a duty to insist so much upon principles apparently so simple, because at this very moment there appears to be a persistent tendency to return to the ill-omened ideas of *Ramau-tuelle*, to which it is attempted to give a new birth.

The almost forgotten personality of this naval writer is of little importance ; it is his ideas which I regard as deplorable and which I combat with the fiercest energy ; for they would lead us straight to defeat as they led our fathers there.

In expressing them, moreover, he has only reflected the state of mind of the French sailors of the 18th century, I might almost say of every period, which makes it all the more necessary to destroy forever those ancient fallacies.

Mahan has himself called attention to this strange doctrine, and quoted the following words of Ramatuelle: "*The French navy has always preferred the glory of assuring or preserving a conquest to that more brilliant perhaps, but actually less real, of capturing some ships, and therein has approached more nearly what should be regarded as the true end of war. What, in fact, could the loss of a few ships matter to the English? The essential point is to attack them in their possessions, the immediate source of their commercial wealth and their naval power.*"

It is well known what results we got, a hundred years ago, from such a conception of war. By conquering Egypt Bonaparte attacked England directly in her possessions, for he thereby threatened the route to India ; he thought that he could do so without regard to the active naval forces of England. This initial error, in conjunction with Bruey's lethargy, brought about Aboukir. The same forgetfulness of this fundamental truth, that before all else the fleet constitutes the effective force, led Villeneuve to Cadiz and Trafalgar.

These ideas of Ramatuelle are moreover directly contradictory of the sentence with which he begins the chapter of his work which is entitled: *On Battle*. "*The battles by which the great quarrels of nations and sovereigns ARE ENDED are the direct and final object of all military tactics.*"

There is nothing to be objected to in this definition, which emphasizes the preponderant rôle of battle in the problem of war. It indicates, in fact, that by it, and by it alone, are conflicts settled. And it is quite surprising to find again, from this pen, the very logical idea that the breaking of the equilibrium of the opposing forces alone is capable of putting an end to the struggle ; for after all, as long as that equilibrium lasts, that is to say until the meeting of the forces has occurred, how could it be hoped "to assure or preserve a conquest," as is counseled in the preceding quota-

tion? It is therefore by a curious irony of fate that we borrow from Ramatuelle himself the logical conclusion of this chapter.

The aim as well as the principal objective of war, the surest way of fulfilling its objects, is and always will be battle, and by its means the destruction of the enemy afloat.

NECESSITY OF AN INITIAL DOCTRINE.

Before ending this chapter, it seems to me quite indispensable to go back to the motives which led me to choose the method of exposition of naval strategy and tactics which I am following, in order to point out its precise scope and to dissipate all causes of misunderstanding which might arise on that subject. I made my choice deliberately and after careful thought. I have already pointed out, I recall, that I could have decided upon another and quite different method, which consists of taking a particular war or battle, of investigating it to the smallest details, of bringing out the errors made as well as the operations which were correct, and finally showing the acts which would have modified the results, in order to derive from all this an important military lesson. This method is the one followed in most military works in which a campaign is thoroughly studied. It is also that of the Military Academy of Berlin. These two facts can hardly fail to raise some doubts, and that is why I think that I ought to explain my position as clearly as possible.

Such a method, assuredly the most perfect for teaching the military art, requires, to be fruitful, one absolutely necessary preliminary condition; that is that all to whom it is applied possess a certain minimum store of ideas in common regarding the most essential truths. It is this that General Bonnal wishes to express when he says: "*Initiative, that quality of character which nothing can replace, can act usefully only to the extent that it is directed by community of thought; in other words by a doctrine common to all the members of the army.*" In his *The Nation Armed*, Von der Goltz also writes: "*The principles of Napoleon form even to this day the basis of our doctrine.*"

And at once the question arises whether we have attained in the navy to this community of thought, to this general orientation of minds towards a single doctrine, without which military studies lack a base.

To reply to this question, it is sufficient to propose for general consideration a concrete problem, as for example that of the most

efficient means to be used to sustain a war with England, with the naval resources, truly very inferior to hers, now at our disposal. The most widely different solutions, and often even the most unexpected, will be found proposed. I have myself brought together numerous examples of them, and yet, if we truly possessed a doctrine, there ought not to be any divergence of views as to the principles themselves of this war. I showed in the preceding chapter that regarding another general principle, that of the objective which Rozhestvensky ought to have fixed upon, there was also no agreement. If then, upon propositions so fundamental, there is no community of thought, what conclusion can be drawn except that naval minds are not yet ripe for a wholly rational instruction in the military art? We need not be surprised at this; the Naval War College is of too recent creation to have been able in so few years to impose upon all in our corps, I will even say upon all the officers who have had the advantage of its instruction, that unity of views and conceptions which, in all the problems of war, dictates to all, by its irresistible obsession, the same solutions.

It is not just then to compare the methods of teaching adopted *at this time* in the two war colleges of the army and of the navy. To make a few comparisons, it would be necessary to go back to what the Army War College was only a few years after 1870.

General Bonnal informs us regarding this in the following words which date from 1892, twenty-two years after the "terrible year": "*The ignorance which reigned in our army of 1870, in the matter of practical knowledge of the affairs of war, is known to every one.*"

"*The lesson which events have given to us has not been lost; for never, at any epoch of our history, has an activity been seen comparable to that which manifested itself after the late war.*"

"*Confused in the beginning, ideas have little by little formed themselves into groups about a few great principles of experience that have formed the basis of a doctrine aiming at discipline of the mind, to-day in full period of development, in which the War College has taken a large part.*"

"*A doctrine of war does not impose itself; it is born of the unanimous concurrence of understandings under the empire of convictions PROGRESSIVELY acquired.*"

The idea could not be better expressed, especially to show the needfulness of time for accomplishing a lasting work in any military institution.

That of the Military Academy of Berlin, which has conducted the German army to the wonderful results we know of, did not escape from this natural rule. In 1806, Scharnhorst, who was the real promoter of the new methods, adopted the study of Napoleon's campaigns as the course of instruction of the academy. But the true masters of the German General Staff were beyond contradiction Clausewitz and Willisen: it is they who brought forth, from the constant study of the philosophy of the *facts* of the Napoleonic wars, the whole body of doctrines with which the German army is so thoroughly indoctrinated, and by which Marshall v. Moltke profited so wonderfully.

It is important to note that the patient labor of adaptation has required no less than half a century; and this observation enables us to estimate the part necessarily played by time in the long drawn-out work of preparation for war, especially if it is needful to discipline ideas, as is urgently the case in our navy.

If Von Moltke was able to perfect the method which he had inherited from his predecessors, first by twofold exercises on the map and in the field, and then by still more profound critical examinations of the campaigns of the "great master," it is because, more favored than his predecessors, he knew the orders and intentions as well as the principal instructions of Napoleon. In the comparison of the great captain's directing thought and its execution, he found the elements of a marvelous teaching.

The mode of procedure is not otherwise to-day in the French army, and there will surely come a time, not far off, when we shall be inspired by a similar method in the navy. But for the moment a more pressing need, let it not be forgotten, claims our whole attention; let us learn to think in the same way about fundamental truths, and when this result is attained, the French navy also will be in possession of a doctrine.

Yet it must be observed in closing that even to this day no harvest nearly so abundant as those of the wars of the Consulate and the Empire is offered to us in the field of naval warfare. I can see, in modern times, only the Russo-Japanese war and the battle of Tsushima which are of sufficient scope to furnish a reasonable instruction. To utilize them fully it will be necessary to wait for a knowledge of a great number of details which remain very obscure and especially of what the motives of the commanders-in-chief were.

CHAPTER VIII.

GENERAL POLICY OF NATIONS; ITS CLOSE CONNECTION WITH STRATEGY. APPLICATION TO THE FRENCH NAVY: HERED- ITARY ADVERSARIES; ENGLISH POLICY; GERMAN POLICY; NEW NATIONS.

It is chiefly in taking up this chapter that I feel all the difficulties of my task. In the short space at my disposal, I ought to pass in review all the elements which make up the foreign policy of a great nation, to show how it acts as the motive and regulator of strategy. This magnificent study, too vast for our limited program, would moreover exceed my ability. And yet it is indispensable for me to show, were it only in a brief statement, the intimate connection which makes military conceptions the natural consequence of political conceptions. There is no study of strategy possible without that. It has become a common saying that: "*A nation must have the fleet which corresponds to its policy.*" To understand the full value of this expression, it suffices to imagine the two extreme possible conclusions of the policy of a given nation: conflict with England or with the Swiss Confederation. And at once it is clearly apparent, not only that the conduct of the war evidently cannot be the same in the one as in the other case, but furthermore that, between these two limiting cases of an exclusively naval power and another with land forces only, there exists an infinity of mixed solutions in which the relative value of the naval force is more or less great in comparison with the total military force.

The point of departure being thus clearly defined, it results therefrom that the future conduct of the operations of war, depending necessarily upon the composition of the adversary's forces, demands prior knowledge of the political objectives. There is no possible strategy, using the expression in its broadest sense, that is in its relation with preparation for war during peace times as well as in its connection with the direction given to actual operations, unless at the very beginning the probable adversary or adversaries are known. Even more, it is usually from the prior

political action that military strategy derives its fundamental premises, knowledge of the enemy, of his weak points as well as of the resources at his disposal, of his moral state as well as of his material situation; in short all the information the utilization of which is the most valuable element in success. Finally, it is through politics *alone* that the military art can emerge from pure abstraction, wholly speculative, to solve concrete cases; it is politics which makes it fruitful.

The very foundations of the military structure rest then upon the precise designation of the nations with which causes of conflict are permanent or even liable to occur. And it is because the study of strategy would be absolutely sterile without this essential datum that I have undertaken to write this chapter.

I scarcely need to observe that I have no means of knowing the government's ideas. The following ideas, therefore, should be taken only as the statement of my personal views. For that very reason, doubtless, they will lose much of their influence, but still they will not have been useless if, even taken as mere hypotheses, they serve to indicate the method. Truly also I would have hesitated to express my full thought if at home or abroad anyone could be led to see in it the reflection of that which inspires and directs, in a practical way, French politics.

THE BRITISH POLICY.

As soon as the problem is set to ascertain in what possible conflicts our country can find itself involved, our thought inevitably turns towards England, not only from sentimental suggestion, under the influence of the acute memory of past defeats, but especially from intuition of the aggressive maritime rôle which her privileged insular position, as well as her immemorial policy, assign to that nation in respect to all other aspirants to economic power.

Doubtless for us seamen, and especially for the populations of the Channel coast, at Dunkirk, Calais, Boulogne, etc., who have preserved so vividly, after the lapse of more than two centuries, the hated memory of the invader, the English represent always the hereditary enemy; but in our utilitarian epoch these traditions would not be enough to justify counsels of military preparation against Great Britain, if motives of a more urgent nature did not compel us to face war with her as an eventuality never to be overlooked.

At the very moment when, on both sides of the Channel, people seem to be celebrating with equal enthusiasm the benefits of the *entente cordiale*, hailed as the symbol of an indestructible peace between two nations formerly irreconcilable, my words appear a rude interruption of the general rejoicing.

"*Embrassons nous, Folleville.*" So let it be, provided it be on the condition that we forget nothing of the past; I do not mean the resentments unworthy of a great nation conscious of its strength and master of its destinies, but the lessons which that past contains, as well as the warnings which it gives us against the menace of the future.

The attentive study of that past is in fact singularly suggestive, and marvelously illumines the motives of British policy. Finding there the evidence of many other *ententes cordiales*, we are naturally led to accord to the one of 1905 the exact value which it ought to have, that of an accidental agreement which will last, like the preceding ones, as long as the economic development of France does not give offence to her powerful neighbor.

It is well to observe first of all that geographic conditions have fixed the destinies of England. Her dwelling on an island of harsh climate predestined her people to hardy enterprises; to continuous maritime expansion. What her first inhabitants were led to do, at first by the necessity of going to seek afar off the essential objects which they lacked, then to engage in barter, and even to secure the wood necessary for the construction of their ships, their successors continued to do, to increase the wealth of their country and finally to sustain their traditions of conquest.

The first manifestations of a policy which still endures in our day, after having proved by a long continuity of effort the maritime and commercial genius of England, go back to the reign of Elizabeth.

The enjoyment of a long peace allowed English commerce to take an unexpected development. Thanks to an activity unknown till then, their enterprises were each day extended further, until they reached the borders of the new world, whither they were drawn by legendary stories of unimaginable riches. In this new field a prior occupant had seated himself, and a rivalry, daughter of the ancient quarrel of Rome and Carthage, was fatally to arise between the fortunate possessor and the new comer with long teeth.

WAR ON THE SEA.

THE DOWNFALL OF SPAIN.

This first phase of England's long struggle for the conquest of maritime empire had for objective the destruction of the till then uncontested naval supremacy of Spain. That nation, then the first in Europe, assumed to forbid English commerce to take its share of the incalculable riches with which she herself loaded her galleons. The rights which she invoked to support her claim to this monopoly were weak indeed, unless supported by the most powerful of all; that which might gives. What truly could a solemn Bull of the Pope count in the eyes of a bold and enterprising people, having the blood of the Normans, and already conscious of its vocation as well as of its strength? It was necessary, as in the time of the Punic wars, that one of the two maritime powers should make way for the other, since the world was not vast enough to satisfy them both.

Such is in fact the true origin of a conflict that ended in the effacement of the first great maritime power which the world-wide British expansion met in its path. Spain's pretension to preserve her monopoly was only the outward pretext of this struggle.

A great seaman, Drake, was the instrument of England's policy, as Nelson was likewise to be two centuries later. Drake captured San Domingo and ravaged the coasts of Spain, notably Cadiz as well as Carthagena, which he reduced. Philip II armed the Invincible Armada, in 1588, to avenge these depredations, and especially to crush this young and very pushing rival. The Spanish fleet had superiority of numbers, but only the appearance of strength. Dispersed by a storm in the Channel, after an indecisive naval battle off Gravelines, it disappeared as a naval force, and with it was likewise wrecked Spain's maritime supremacy. It is from this period, on the contrary, that the ever growing power of England dates its awakening. And this date is the more interesting to observe because it marks the birth of a new method of naval war which the English nation will so well succeed in appropriating and making profitable that to it she will owe the secret of her unexampled prosperity.

To the great Armada, the English fleet could oppose only approximately equal forces in respect to numbers of men and ships; perhaps the Spanish ships might even be thought the stronger. But the preparation was far from being equal on the two sides; the Spanish vessels were less well armed; and, finally and more

important than anything else, the better trained English crews were greatly the superior. In short, the moral forces of every nature were the greater on the English side, and, as always, they inclined the balance of fortune.

We already have a clear grasp on the idea of the primary importance of preparation for war. The intoxication of riches acquired without reckoning, the indolence which comes from their too long enjoyment, the careless peace of mind derived from a monopoly so long uncontested, had made Spain forget that a formidable force alone is capable of restraining dangerous desires.

Until the last years of Elizabeth's reign, in spite of the battle of Gravelines and the attempt of the Armada, the character of the English-Spanish hostilities was rather that of a war of commerce-destroying than that of a war of great military masses. It is particularly after her death and under Raleigh's energetic impulsion, that England, conscious of her strength, was to adopt definitely, for the triumph of her naval policy, the true military plan. It is by his words, as well as by his pen and his deeds, that Raleigh preaches the new doctrine. I take from Seeley¹ a characteristic passage of one of Raleigh's letters: "*Yea in eighty eight, when he made his great and fearful fleet, if the queen would have hearkened to reason, we had burnt all his ships and preparations in his own ports as we did afterwards upon the same intelligence and doubt in Cadiz. He that knows him not, fears him, but excepting his Low Country army, which hath been continued and disciplined since Charles V's time, he is nowhere strong.*"

As may be seen, it is no longer a question of merely falling upon Spanish commerce and capturing a few ships, assuming the restricted rôle of pirate; ambition has a higher aim, nothing less than to destroy the world-wide power of the King of Spain and to put England in his place.

Raleigh expresses himself on this subject with perfect clearness: "*If the late queen would have believed her men of war, as she did her scribes, we had in her time beaten that great empire in pieces and made their kings kings of figs and oranges, as in old times.*"

These lines of Raleigh also contain a whole system of strategy, which thenceforth for centuries will be that of the English navy. This strategy, very far from scattering efforts upon enterprises of

¹ The Growth of British Policy, by Sir J. R. Seeley.

WAR ON THE SEA.

small scope, such as attacks upon commerce or upon territorial possessions necessarily are, will take as principal objective the destruction of the enemy's naval force, thus realizing at one stroke the aim of the war.

It is right to recall that Drake had had the same prophetic views, but, less fortunate than Raleigh, he had not the satisfaction of making them triumph, because held back by the queen's desire for peace. As early as the time when the Armada was being prepared, he wrote: "*Her Majesty and people are not to fear any invasion in her own country, but to seek God's enemies and her Majesty's where they may be found, . . . for with fifty sail of shipping we shall do more good upon their own coast, than a great many more will do here at home These vast preparations of the Spaniard may be speedily prevented, as much as in your Majesty lieth, by sending your forces to encounter them somewhat far off, and more near their own coast, which will be the better cheap for your Majesty and people and much the dearer for the enemy.*"

Observe in passing the remarkable agreement in opinion of the best among the English seamen of the time in favor of the offensive. By the employment of this offensive an English squadron under Raleigh's orders in 1596 destroyed an important Spanish fleet in Cadiz and burned the city. These considerations lay bare for us the intimate relation which exists between the general policy of a great nation and the military combinations whose object it is to make that policy triumph.

We shall find new evidence of this in the course of history. The end of the 16th century and the beginning of the 17th mark the decline of Spain's maritime power. There will be a few more attempts on her part to reconquer the empire of the world, but they will be fruitless, and this nation, formerly so prosperous, will never more be able to disturb the new Empress of the seas.

RIVALRY WITH HOLLAND.

But this period witnessed also the birth, as it were, and the growing up of a new maritime power, the rapid and formidable expansion of which was again to awaken England's jealous attention. The Dutch had also entered upon the path of commercial maritime development and had grown rich upon the spoils of Spain. Everything urged them to this course; the unfruitfulness

WAR ON THE SEA.

of their land, its harsh climate and its geographic configuration. They feel themselves drawn to a seafaring life and succeed in it so well that they take the lead in the economic movement. Well before England, they found colonies in the New World, create all at once a powerful commercial fleet which furrows the seas, transporting the products of exchange, even for the account of Spaniards in the time of their splendor, and justify finally the title "Ocean Tramps" which has been given them.

The 17th century was to be made notable by the inevitable conflict of the "sea powers"; for, vast as was the ocean's extent, it was not large enough to permit two nations having the same desires to expand upon it side by side. The first attack made upon the commercial prosperity of Holland was Cromwell's famous Navigation Act, in 1651. By reserving for the future to the British flag alone the monopoly of the transport of English products and merchandise, he seriously disturbed the Dutch in their own monopoly, which, though based upon old custom and the existing situation, was none the less powerful from the importance of its apparatus. It is not surprising, therefore, that in the following year they came to blows; but it is particularly curious to note that, hardly a few months before the promulgation of the "Navigation Act," the two naval powers had drawn up a plan of union, which came to nothing, but which suffices to show that agreements between nations are very precarious, if they are not based upon great social interests. In reality, this manifestation of hostility only emphasized the smothered rivalry existing from the beginning of the century between England and Holland.

War was therefore inevitable, and it was conducted by the English sailors with that spirit of decision which has persisted with them as the characteristic trait of their offensive method. By throwing himself upon a flotilla of fishermen, and capturing or destroying the Dutch war ships which guarded them, Blake showed himself the worthy heir of Drake and Raleigh, and the recognized precursor of Nelson; the English navy possessed from that moment the true doctrine of war, represented by energetic and resolute attack. In this conflict, the naval war forces were sensibly equal in nominal value; but, under the all powerful influence of the great Oliver, that of England had benefited by the military and combative spirit which the Protector had inspired in his people. The British navy was therefore to triumph in this struggle,

in spite of temporary set backs due to the exceptional worth of Dutch seamen like Ruyter and Tromp. Furthermore, this struggle was ruinous for the Dutch. That nation of traders, accustomed to have everything, even to the most essential supplies, brought from abroad, suffered incalculable damages from the obstacles to the free movements of her supply ships caused by the state of war. Finally, by the very nature of her political constitution, she was little prepared to adopt the sole measures capable of assuring to her the integrity of her economic power.

A coalition of identical general interests rather than a national unity, the government of the Low-Countries could with difficulty understand that the preparation of a powerful war fleet was not an unnecessary expenditure, abstracted from commercial wealth. They haggled over the expenses of arming and getting ready ships of war, and deserved Ruyter's threat to take the sea no more if the number as well as the strength of his ships was not increased.

Such doings are common to all periods, and that is why they should be remembered. Very few people, even in our times, are capable of assimilating this fundamental idea; that only the powerful are respected and can enjoy their possessions in peace; that, consequently, it is indispensable to be strong. But, to be strong, it is necessary to know how to expend properly the premium of insurance against the risks of war, and that premium is nothing else but good preparation; it is a wise economy. Very small would have been the expense of construction and maintenance, for Spain first, then for Holland, of fleets of sufficient strength to intimidate England and cut off at their roots her aggressive inclinations, when compared with the immense losses sustained by those two nations in their loss of maritime supremacy.

In her duel to the death with England, Holland was therefore to succumb. If this result was not completely secured in the first war, she was already struck to the heart; if, in the second war, her admirals won the naval Battle of the Four Days, that isolated success was but the last desperate effort before the final overthrow. The Dutch marine, struck in its vital parts, thenceforth declined, and retained a few traces of its ancient prosperity only on condition of following thereafter in the track of its all-powerful rival.

The 16th century, then the 17th, were two successive stages in the continuous enhancement of the maritime power of England, characterized, the first by the weakening of Spain, the second by

the defeat of Holland. With the end of the 17th century and the 18th century, the turn of another nation, France, was to come.

THE CONTEST WITH FRANCE.

We meet the first "*entente cordiale*" in 1657, under the form of a veritable offensive and defensive alliance between England and France. It had, however, but a brief existence, since less than thirty-five years later the two allied navies fought, first at Beachy Head and then at La Hogue. If that period, very short as it is in the life of peoples, sufficed to transform so radically the relations of the two nations, it is because their respective situations were considerably changed in the interval. At the time of the agreement arranged between Cromwell and Mazarin, France, as a naval power, had no existence; scarcely emerged from that terrible internal crisis, the war of the Fronde, still struggling with a war against Spain, she was sufficiently occupied besides with the work of recuperation not to be able to give offence to the Protector.

To England, on the other hand, it was above all important to give the coup de grâce to Spain, already very enfeebled, and to dominate Holland with equal completeness. But a few years later conditions were no longer the same.

With the effective accession to power of Louis XIV, there at once opened for France an era of extraordinary grandeur, of power and of conquests whose radiance could but awaken the jealousies of England.

The whole policy of the Grand Monarch consists in fact of a persistent effort to absorb to his own profit, at first by force and later by alliances, the King of Spain's heritage of glory and power. And from the first manifestation of this ambition, two contingencies are of a nature to alarm England most particularly.

The heritage of Spain includes, in fact, the Spanish Low-Countries, that is Antwerp; and the mere idea that that port, which has been one of the busiest in the whole world, which is destined by its favored situation still to play a great part in the economic warfare, can fall into the hands of an enterprising and expanding nation, is quite insupportable to the British people. This is not all; the heritage of Spain contains still other crumbs of past grandeur and of real absolute dominion over the seas. Who could affirm that the heir, full of spirit and ardor, will not claim all the

fruits of his conquest and will not wish to take up for his own account the ancient commercial splendor of Spain?

There are more motives than would be necessary to make England feel her paramount maritime power to be seriously threatened. She has the more right to be anxious because the patient and methodic labor of Colbert has supplied his king with wonderful instruments for carrying out his policy; a powerful naval force and maritime institutions which favor economic expansion. Henceforth, France will be the enemy!

Under the reign of Charles II, so obstinately favorable to the maintenance of good relations with Louis XIV, the dawning development of the French navy began to excite the English suspicions; that monarch himself expressed them in a letter to the King of France, quoted by Mahan: "*There are two impediments to a perfect understanding. The first is the great effort that France is now making to create a commerce and become a powerful maritime empire. This is so greatly suspicious to us, who are only important through our commerce and our naval forces, that every step that France takes in that direction will perpetuate the jealousy between the two nations.*"

There may be seen laid bare the heart of England's political doctrine, and when it is considered that this was thus proclaimed with such clearness hardly a few years after the understanding of 1657, it may be understood exactly what degree of vitality must be accorded to a reconciliation born of transitory conditions and as ephemeral as they.

To make front against this new storm that was brewing England formed the Triple Alliance. In joining herself to the United Provinces, she appeared to forget old grudges in order to ward off a more pressing danger; but in reality she pursued a double object, since Holland, already weakened, would find herself the more directly exposed to the blows of France, and, by serving as a sort of shield to her ally, would withdraw from the struggle still more enfeebled. The correctness of the views of the English policy was demonstrated by the events of 1672, the fall of de Witt's government and the almost complete ruin of the United Provinces.

But it was above all under the reign of William of Orange, who, by uniting upon his head the two crowns of the Low-Countries and England, sealed the close union of interests of the two countries, that the opposition to the aggrandizement of France took its

most energetic and decisive form. The disaster of La Hogue, inflicted on the French fleet under Tourville, was the result of this opposition.

The consequences of this naval defeat were considerable, for it was the beginning of a period of almost complete eclipse of the French navy. And yet never perhaps would a powerful and formidable fleet have been more necessary to France, to sustain the long and important war of the Spanish Succession, which was to begin very soon and to open anew the question of maritime supremacy. A page of Seeley admirably expounds the philosophy of this important struggle.

"William's work has hitherto consisted in raising the British state to a position in the world similar to that which had been hitherto occupied by Spain. He unites the two maritime Powers which on the sea and in the New World are the successors of Spain. The British Trade Empire which now begins to take shape can only flourish at the expense of Spain. The maritime sceptre is about to pass from Spain and seems likely to pass to Britain. The question of the Spanish Succession is thus twofold; it is the question not only who shall be Spanish King on the death of Charles II, but also who shall succeed to the ancient maritime and colonial monopoly of Spain.

"France will put in her claim to the latter succession as well as to the former. For France too has experienced that singular transformation which marks in England, as we have seen, the age of the second Revolution. French politics too have been passing into the commercial phase. It could not be otherwise since the position of France and her relation to the Spanish monopoly was very similar to that of England. If England was insular and oceanic, France too has a long sea-board, facing at once the Northern Seas, the Atlantic and the Mediterranean. She has flourished hitherto upon the spoils of Spain, why should she not acquire the most precious of all Spain's treasures, her colonial monopoly? She is prepared to do so, for of all the many developments of French activity in that age, in which she was so active, perhaps the most remarkable was that to which Colbert gives his name. With him she had entered into commercial and maritime policy, and before the battle of La Hogue she had ranked as the first maritime Power."

These lines contain the substance of the causes of the permanent

WAR ON THE SEA.

hostility of England towards France. This memorable war definitely opens a period of almost continual conflicts between the two nations, a period which covers the 18th century and only ends in 1815, with the final crushing of France's pretensions to maritime supremacy. All these conflicts were really the effects of a single cause: the opposition of Great Britain to the economic, commercial and colonial development of her rival. The war of the Spanish Succession is also notable for an occurrence of the utmost interest for us. I refer to the capture of Gibraltar and Port Mahon by England. This event is of capital importance, for it inaugurated the system which that nation will thenceforth apply with remarkable logic, and by which she will assure to herself the strategic bases indispensable to the maintenance of her maritime monopoly. In proportion as this dominion takes on greater proportions and extends its immense net over all the seas of the world its security will require points of re-enforcement where the meshes of this net will find themselves strengthened; and it is thus that little by little the English policy will sow over the whole face of the earth the bases of operations and advanced bases which, at least as much as her squadrons, and because without them those squadrons would have but a precarious strength, will be the principal elements of the British power.

I have said *English Policy*, for it is truly only to the directing power of a great nation that can be attributed the comprehensive views, the breadth of far sighted plans, the patient continuity of effort, which have brought about this methodical grouping of stations, always chosen at suitable points, by which the English government has secured maritime supremacy. No example shows better than this one that the very foundations of military strategy rest upon politics.

The year 1717 brings about, between France and England, a new friendly understanding the memory of which is surely one of the most humiliating in our history. It was the outcome, in fact, of a haughty and despotic domination on the part of our ancient enemies, and of a base subserviency of the hateful policy of the regent and Cardinal Dubois.

The most substantial guarantee of the solidity of the understanding was the intentional weakness of our navy; no longer strong, we were no longer to be feared, and England could give us the alms of disdainful friendship. Moreover, wishing to do the

most urgent thing first, she was above all anxious to crush in its incipency the attempt at building up again the Spanish power under Alberoni's energetic impulse. And after this result had been attained, thanks to the blindness of the government of France, there was no navy left strong enough to oppose the overwhelming naval strength of Great Britain. We find this statement in the celebrated *Mémoires* of Saint-Simon: "*There is no counter weight to the naval power of England, whose ships cover every sea. Holland, while inwardly lamenting it, dares not show her feelings. Spain will not be able for a long time to recover from the fatal assistance that we have lent to England in ruining her navy and crippling her commerce and her establishments in the Indies; and France would need thirty years of peace, and of the wisest government, to bring her navy back to the point where Colbert and Seignelay left it.*"

It is important to find from this eminent writer and diplomat the affirmation of the need of a powerful navy.

The new understanding was also to be a very insecure one. since it did not withstand the first signs of a darkening of the political heavens, and less than a quarter century was needed to change agreement into armed strife.

It did not need much to excite again England's suspicious temper. A renewal of commercial activity and economic prosperity, the appearance of a revival of the French merchant marine, brought about by the business transactions of the new East Indian Company, no doubt also the renewed energy instilled into the Navy by Maurepas, were enough to make that jealous nation think its despotic control of the ocean threatened. The maritime war of 1743 had no cause more pressing. The peace of Aix-la-Chapelle, which put an end to it, brought about in reality only a short truce in an almost uninterrupted period of tension and hostilities, and it could not be otherwise, for the genius of Dupleix and his accomplishments in India fully compensated for the cowardice of the French government as well as its incurable weakness in arousing in the English public mind an ardent wish to destroy France. The elder Pitt, a man great by eloquence, by talent and by the intensity of his patriotism, stirred up the glowing fire of hate which was thenceforth to let England loose against France, the nation which, through the whole century, embodied the spirit of resistance to her growing power.

And it is Pitt who, faithful guardian of the tradition bequeathed by the statesmen of the British Empire, condemned in the following terms a new truce granted to France in that merciless strife: "*France is chiefly formidable to us as a maritime and commercial power. What we gain in this respect is valuable to us above all through the injury to her which results from it. You leave to France the possibility of reviving her navy.*"

We must recognize that our implacable adversary saw clearly; for, under the skilful guidance of the duc de Choiseul, the French navy was to be again brought to a point of readiness and strength such as it had not known since Seignelay. This was also the time when the ardent wish to shake off the English yoke, and to strike through the invulnerable girdle of her fleets at her heart, gave birth to numerous projects of invasion, among which the most famous, and justly so, is that of the Comte de Broglie.

Finally, after fifteen years of reconstruction and recuperation, the struggle for American independence was to suggest to France the idea of taking her revenge for the humiliating exactions of the treaty of Paris and of profiting by the straits of her hereditary rival to regain world-wide dominion. It is unfortunate that her navy did not have at its head, at this time, a man who knew how to make war; the moment was favorable for the success of these views, but the instrument was lacking. Suffren alone fully understood the true doctrine of war, but being at a point too far removed from the center of the theater of hostilities, his successes could have but little influence on the final result. At the head of the French fleets *in America*, without doubt he would have changed the current of events. But of what avail could be men like d'Estaing and de Grasse against Hoods and Rodneys? These two latter names do but summarize the long period of preparation for battle which, without weakness or hesitation, by the sole force of heredity, had preached to the English sailors for two hundred years the religion of *action*.

But, though the attempt failed, the memory of it has remained, and all the more painful to England because it recalls to her the loss of her finest colonies in America. In the younger Pitt she will have an active agent of this resentment against France; having taken up his father's quarrel and sworn absorbing and implacable hatred to that country, he will seize every opportunity to injure her and strike her down. It is thus that he will let loose against

her the savage wars of the Republic and of the First Empire, still more infuriated against Napoleon because that great man will threaten more directly the English power.

On October 21, 1805, Nelson consummated the defeat of the French fleet and closed, to the profit of his country, the third chapter of the magnificent work of building up the English power begun under Elizabeth.

Beginning with 1815 France experiences a period of repose during which she heals her wounds and appears to disregard maritime affairs. In 1830, nevertheless, the Algerian expedition gives notice of her awakening, and nothing more is needed for British interests to think themselves threatened. The energetic attitude of the Minister d'Haussey was necessary to make our irritable neighbor admit our right to make France respected by a petty king of pirates.

I was unwilling to omit this well known incident precisely because it shows, with much precision, how the ministers of his Britannic Majesty at all times regard the attempts of other countries to expand even in a small way.

Much might still be said about the period which comprises the greater part of the 19th century, although it furnishes us with no example of great naval wars comparable to those of the preceding centuries. It affords on the contrary the spectacle of a great apparent cordiality of relations between France and England, which leads them to seal the two *ententes cordiales* of 1843 and 1856, and even to fight as allies for the same cause against Russia in 1854; it also reminds us that before 1870 the trend of opinion at the Imperial court was openly towards the *entente cordiale*. The word and the thing, as may be seen, are not new.

But I am anxious to reach a more important stage in the subject, not only because it is closer to us, but especially because it brings the logical and concordant conclusion of this too short resumé of the history of the naval greatness of England.

After the disasters of the terrible year, our unhappy country, mutilated by the loss of two provinces, wholly absorbed in the work of recuperation, first made good her military deficiencies. She laid the solid foundations of what had been wanting to her during the war, that is to say a strong army; then, feeling once more a warmer blood flowing strongly in her veins, she sought in colonial expansion a powerful remedy for her recent misfortunes. And in

WAR ON THE SEA.

a few years Tonkin, Madagascar, Dahomey, the Congo, etc., made up again for her an immense colonial empire comparable to the one she had lost in the preceding century.

Certain of her traditional enemies, far from being disturbed by this, saw with friendly eyes her entrance upon this path. But it led straight to territories which England assumed to reserve for herself, in virtue of her favorite adage that what belongs to no one must evidently belong to her, and so our colonial policy, joined to other causes that I shall point out, brought on the two very grave crises of the year 1898, the Niger and Fashoda.

That in so short a space of time, at two very different points of the colonial chess board, we should have verged upon war with England twice, the first time in the spring, the second in the autumn, shows that there evidently must have been between the two nations causes of disturbance more active and vigorous than those officially given out to the world.

Circumstances placed me in a position to see close at hand the consequences of the alarm of the Niger, and to experience the unforgettable hours of the sharp tension of Fashoda. That, without doubt, is why I remain profoundly sceptical regarding the sincerity and durability of friendly understandings, for it is not without profit to be forced by the grave events of this world to weigh the real and profound motives of great conflicts of peoples; and these motives have nothing in common with sentimentality.

A few lines taken from a document of that period are wonderfully appropriate to this part of my book and will enable me to throw special light upon the question we are now considering. This document, which dates from August, 1898, is the reflection of impressions gathered together after the excitement of the spring of that year had subsided, and (a statement the importance of which needs no emphasis) it at the same time prophesies the new difficulties which are to arise a few months later.

"All these preparations (the question was of the precautions taken on the occasion of the Niger affair) as well at home as in the colonies, were useless. But the apprehensions which had given birth to the fear of an immediate conflict with England continued none the less to exist; it may be said that they still continue. We must not conceal from ourselves that the policy followed by our government and our alliance with Russia, despite the Tsar's peaceful intentions, have alienated from us the sympathies of England,

which is persuaded that by striking France she would take away from Russia the principal source of her revenues; in short that English public opinion shows itself very favorable to a war against France. The reasons which, last March, led to the belief that war with England was to break out have lost nothing of their force, and, though the conflict no longer appears so imminent, no one can say that, one day or another, on the occasion of such or such an event, that cannot be foreseen, we shall not be the victims, as we were on the verge of being, of a brutal and sudden attack.

"If then, though warned by a recent past, we have not made all the arrangements demanded by the situation; if we have not made all the necessary sacrifices, will not a heavy responsibility weigh upon us?"

These fears were only too well founded, for hardly a few weeks had elapsed after they were formulated when the grave incident of Fashoda happened. I have written "incident" intentionally; it was, in fact, only an incident skilfully exploited to put an end to a latent condition of more general difficulties. It is easy to conceive that the disproportion existing between the possession of a fever-stricken waste of land and a war as formidable as that with which we were threatened does not permit regarding the former as the cause of the latter. The premonitions of this crisis could have their source only in a deep-seated organic trouble. To explain it, all the symptoms of an uneasy feeling between the two nations must be brought together and considered as a whole.

This study is so much the more necessary because, before the year 1898, the sincere friendship of England was an immutable article of faith for the majority of the deluded French people; immutable to such a point that, in spite of a first thunder clap in the month of March, many of them, and *not those of little consequence*, were pleased to make a mock of it when in October the probability of an armed conflict was spoken of. One more quiet friendly understanding bordering very closely upon a quarrel.

And yet the nature of the English sentiments, at this difficult hour, was not doubtful to anyone who wished to see. Public opinion, on the other side of the Channel, unanimously regarded French diplomacy as a constant annoyance, in direct opposition to England's plans everywhere in the world; in Egypt, in Africa, in Siam and in China. The principal grievance formulated against France was based on our policy of protection, which, by closing

the French market to English commerce, took away from it considerable openings and thus did great injury to it. Even the French-Russian alliance was a cause of irritation to the English people, for they saw in it a threat against themselves, Russia's constant advance towards India making her a probable adversary.

This state of mind was carefully fostered by English statesmen, by the press and by the theater, in every sort of way.

One must have read with the interest imparted by the anxiety of serious hours of life this page of our contemporary history, at the very instant it was recorded, to understand the value to be given to-day to too loud protestations of friendship. Among the propositions most frequently advanced to stir up English antipathies against France, there is one which must be mentioned. It is contained in an aphorism enunciated by the Prime Minister, Lord Salisbury: "*The decadent nations are a danger to peace,*" and at once applied to France: "*France is in decadence, therefore she constitutes a danger; she must be suppressed.*" The *National Review*, in a sensational article of November, 1898, drew a comparison between France, England and Germany. After having shown for our country the constantly diminishing birth rate and pointed out the continuous increase of population of the two others, that review compared the economic statistics of the three nations to derive from them the definite conclusion that France is growing progressively weaker and the other two countries are constantly increasing in strength.

From this to representing our country as incapable of developing the immense colonial empire conquered fifteen years before was but a step and one quickly taken; and at once the motive appeared; England, on the other hand, through her immense resources, her activity, and her overflowing population, was clearly indicated as the one to take up the burden too heavy for our weak shoulders.

Even our sad internal dissensions were devilishly exploited to prove the need of destroying the corrupting action of the latin races by the triumphant and civilizing supremacy of the anglo-saxon races.

This whole campaign, carried on in the way best fitted to excite popular feeling, in reality masked the true motive, always the same, which for three centuries has inspired British policy. The national prosperity of that people is built upon an indefinite ex-

tension of commerce, free markets and naval supremacy, the third of which is the guarantee of the first two.

But official statistics showed already, in 1898, that in the seven previous years the sum total of English exports had diminished 5 per cent, while that of imports had increased 4 per cent. These figures indicated a retrograde movement of British commerce, and its importance was accentuated by the fact that the same documents showed an opposite condition of affairs in other countries. A no less serious evolution of the great English Colonies also threatened England in her economic outlets. India, Canada and Australia, in their turn becoming manufacturing countries, escaped from the guardianship of metropolitan industries; and the search for new markets, for new customers, took on the character of a pressing necessity. It is at this very moment that France, on the one hand closed by prohibitive import duties, on the other interferes with England in her necessary expansion by her African colonial policy and her alliance with Russia, which brings the Far East into the question.

Finally, the considerable development of the different European navies is a threat to the fortunate possessor, up to that time, of maritime supremacy, and these three causes together logically impose upon England an aggressive policy in regard to France.

By destroying the French fleet, the most powerful after her own, she would make sure of her domination over other navies for many years. By taking from France her colonial empire, and notably Burmah and Siam, she would give new and immense outlets to her commerce. Finally, and above all, she would yield to her economic destiny, which inexorably compels her to crush her rivals, in order not to be absorbed by them.

That this war did not take place for sentimental reasons, attributable to the queen, it is said, takes away nothing from the strength of the arguments which incited to it; I will even add, as my independent opinion, that, in giving it up, the English government on this occasion lost sight of the doctrine of Raleigh, Cromwell, Shaftesbury and the two Pitts.

Less than seven years after a storm so violent that one of the most authoritative organs of the English press declared that "*conflict between the two great powers was inevitable sooner or later*," Lamourette kisses are being exchanged, and there is no longer question of anything but peace and concord. Those who, in this

"entente cordiale," see anything but a momentary expedient, intended to make head against more imminent dangers, have not studied the causes and the *necessities* of English power.

THE MODERN CARTHAGE.

A new adversary, more dangerous than France for the moment, appears on the economic and maritime horizon; all the attention and all the resources of Great Britain are not too much to guard against her encroachments.

Against the more threatening storm from the quarter of Louis XIV, England designed the Triple Alliance, in which Holland, her aforetime enemy, figured; against the darker heavens in the direction of Germany, this same England to-day has found the shelter of an understanding with a nation but yesterday regarded as the irreconcilable adversary. The method is always the same. And moreover, since 1870, a gathering storm much more dangerous to the world-wide power of England than any previous one has arisen in the political heavens. The reconstitution of the German Empire has given a splendid impetus to the commercial expansion of that country; her merchant fleet, negligible less than forty years ago, to-day comes next after England's, and its tonnage, which has more than doubled in a short interval of ten years, while that of England has only increased 40 per cent, is increasing with extraordinary rapidity. German freighters furrow the seas, and under the enthusiastic propaganda of the *Flottenverein*, itself inspired by the Emperor, use every means to become in their turn the "*tramps of the ocean*." Still more, the German "salesman" travels everywhere to-day, and by his savoir-faire, his inexhaustible readiness to meet every wish of his customer, carries off orders under the very noses of the English merchants in the very markets where they were most successful.

And that is not yet all; the economic policy of Germany gives England other causes of anxiety. She is in the way of absorbing patiently and surely, at least commercially, if not materially, the Netherlands. Statistics are instructive on this point; the increase of traffic of the port of Rotterdam is extraordinary, since it has quadrupled in thirteen years; but 70 per cent of this traffic is by the interior water-ways, and these ways *lead to Germany*.

As if better to indicate the trend of events, Amsterdam, Rotterdam's commercial rival, is seeking likewise to connect herself with

the Rhine by a canal. A new Holland question, of an unusual sort, has therefore arisen for England, as big with consequences as the old ones, though apparently more inoffensive.

It is not alone in the direction of Holland that the continuous expansion of the Germans threatens and disturbs England. The subjects of Emperor William monopolize each day more and more the city and port of Antwerp, which grow German, if not in nationality, at least in fact.

To take account of this slow and methodical infiltration, which will necessarily end in conquest, peaceful or not, but real, the magnificent work of M. Maurice Schwob, which appeared in the *Ligue Maritime*, must be read in its entirety. Any quotation which I might make from it would be inadequate.

There is not therefore merely a modern question of Holland; but the entire question of the Netherlands has come to life anew after the lapse of more than two centuries.

And finally, beyond and above all that, the construction by Germany of a powerful war fleet, its disquieting increase, the clearly offensive character of its conception, show plainly to England that this time her ancient maritime tyranny is in danger. This peril is so much the more serious because the new adversaries do not seem likely to commit the same errors which formerly cost to Spain, to Holland and to France their finest colonies and their influence in the world. They know that to be lasting economic prosperity must of necessity be based on *force*, in order to impose respect, and they are working to obtain that result.

One of their military writers, Colonel Goedke, said recently: "*The fairest memories of our commercial days attach to the time when the Hanseatic League dominated the sea, and we can recall that time with pride now; for at the moment when the liberal middle-class, after centuries of lamentable decay, prepares to retake the place which belongs to it in the State, it at the same time revives the idea of clearing the abandoned road which will lead us to supremacy on the sea by the creation of a German fleet. It would be a renunciation of the finest traditions of the liberal middle-class and a most serious misunderstanding of its vital interests, to turn the heart of the democracy from an increase and strengthening of the naval forces of Germany now and in the future.*"

And better still to explain his thought, the same writer adds: "*If Russia had had in the Far East, two years ago, a few big*

WAR ON THE SEA.

battleships and a number of armored cruisers she would still possess Port Arthur, Manchuria and Korea. Japan could not have thought of making war upon her NOWHERE HAVE DELAYS MORE EFFECT, NOWHERE DO THEY COST MORE DEAR THAN IN WHAT CONCERNS THE FLEET. No longer like the Romans can we build a fleet in three months; we need for that a continuous effort during twenty years, without losing sight of the object, and that is exactly why we have no time to lose."

All that precedes throws a vivid light upon the present attitude of England and her very rapid change of front.

To-day it is against Germany that are directed the efforts of her statesmen, of her press and of public opinion; it is Germany that has replaced us, in less than seven years, as the point of aim for the violent attacks of the English people.

And in this England follows logically the unchangeable principle of her policy. In the stubborn onward march, with eyes constantly fixed upon her single aim, economic greatness, she takes inspiration from the watch-word set by Shaftesbury: "Carthage must be destroyed," and for her Carthage has been successively Spain, Holland, France; to-day her name is Germany and perhaps to-morrow she will again be called France, or very likely the United States or Japan. Necessarily pledged to violence to preserve the maritime power which is the nourishment indispensable to her life, she will see a new Carthage in every nation which seeks to acquire a portion of the empire of the seas.

This manner of looking at things is so little exaggerated that, on November 9, 1905, in an address delivered at the Lord Mayor's banquet, Mr. Balfour, the Prime Minister, said in exact terms: "*I believe that in future we shall not see war, UNLESS WE CAN CONCEIVE THAT EITHER A NATION OR A RULER WILL ARISE WHO CANNOT CARRY OUT THEIR SCHEME OF NATIONAL AGGRANDIZEMENT EXCEPT BY TRAMPLING ON THE RIGHTS OF THEIR NEIGHBOR.*"

It is enough to recall how, in the course of history the English have always interpreted *their rights* to understand the full scope of the warning concealed under these flowers. If I have succeeded in this too short summary in bringing out the inflexible character of English policy, it will be understood why preparation for war against England is a sacred duty for every country animated with the legitimate desire to spread the rays of its progress beyond its sea frontiers; it is therefore a prime necessity for us if, refusing,

as it is to be hoped we will, to remain fixed in our commercial debility, we proceed to resume at once in the economic world the position which belongs to us.

In the preparation of this chapter, I have given the principal place to the consideration of England; this is because England's example shows better than that of any other combatant how the general policy of a people rigidly controls their strategy and in what narrow dependency it fixes the orientation of that important part of the military art. No other example could be more valuable than England's in this respect.

Certain publicists, it is true, and not among the least, on account of the positions which they have occupied, have many times argued and even lately declared that, in the field of naval warfare, a contest with Great Britain was impossible. I will not discuss this incorrect statement, and moreover one insulting to a great nation, rich as is ours in a glorious past. No contest is impossible, except to nations who give up in despair, and such nations are ripe for slavery.

THE FRANCO-GERMAN FEUD.

It would be superfluous to enter into long arguments to show why we should face the eventuality of an armed conflict with Germany; the evocation of very recent differences would amply suffice to demonstrate it. The possibility of a new encounter with that Power does not arise, as in the case of England, from causes so to speak impersonal. While the character of the British hostility is as it were general and derives from an unchangeable principle, applicable to all the adversaries successively opposed, a war with our Eastern neighbor would be but the renewal of a quarrel already more than two centuries old. This is not an economic struggle, it is an essentially political antagonism.

It is not without reason that the Emperor, on the frequent occasions which are afforded to him for expressing his ideas, said in speaking of France, "the hereditary enemy." This expression, which betrays an active grudge, sums up in fact the history of the hostile relations between the two countries, the continuous growth of the little state of Brandenburg from the second half of the 17th century to the reconstitution, to its profit, of the German Empire, and the constant opposition made by France to that development.

Everything, even to the resentment of the French Protestants

who were driven out by the revocation of the Edict of Nantes and who built up Berlin, has contributed to sow seeds of discord between the two States.

This union of Germany which French diplomacy not only did not know how to prevent, but on the contrary, helped to establish by the multiple errors of its policy, constitutes for us to-day a constant menace. The uninterrupted increase of her population, still more than all the other forms of her activity, prepares for us in the future formidable dangers, because it will facilitate for our adversaries the possession of that important factor of success, superiority of numbers, and this so much the better as our birth rate is the less. When, to satisfy traditional rivalry, and also in dispute over the heritage of Charles V, the Bourbons and Hapsburgs gave each other such hard knocks, they did not foresee that, thanks to their dissensions, a third marauder would one day seize upon the spoil.

French diplomacy perceived one fine day that it had weakened in Austria the necessary counterpoise to the disquieting encroachments of Prussia, and it made the Seven Years War; but it was too late. The great Frederick had already conquered Silesia and directed minds towards the *Germanic idea*, the definite evolution of which nothing could thenceforth arrest. In the very serious match which he entered upon against France, he was to win for his people the first game at Rossbach.

Though Prussia finally lost the second game at Iéna, she was to win the deciding one at Sedan. The blindness of France, whose successive governments transmitted as an article of faith the necessity of destroying the house of Austria, had prevented her from seeing a danger more to be feared. It is not impossible to attribute to an unconscious revival of this same fixed idea the passive acquiescence of the Second French Empire in 1866, in face of the new weakening of Austria by Prussia at Sadowa, a new error initiative of our own defeat.

It is therefore truly as much through the accumulated errors of French policy as by the persistent efforts of her own workers that German unity has been brought about.

After this long duel, of which the special and exclusive character is undoubted, and which settled the dispute by the definite loss of the match on the part of France, there was nothing to prevent an equally definite reconciliation between the two peoples. Just

as, in individual encounters, forgetfulness of reciprocal grievances is sealed on the field of combat, France and Germany could very well after 1870 have made a truce to their quarrels. The satisfaction to our enemy of having attained his object, in spite of our desperate centuries-long resistance, was fine enough to dictate forgetfulness of past injuries; on our side, the souvenirs of glory were numerous enough for the passage of time to be able to soften the painful impression of defeat. Considering everything, the Germans had Sedan, but we kept Iéna.

Such was truly the dominant feeling among our adversaries, for naval officers have preserved the memory of the eager civility, too demonstrative not to be according to orders, which was shown to them by their comrades of the German navy, even several years after the war, on all occasions when their common profession brought about meetings throughout the world.

To occupy the position of taking only the unequivocal *expenses* of the war, it would have been necessary not to ask of us a too exorbitant amount, and it could not reasonably be expected that France, shorn of two provinces, and with still bleeding side, would forget so cruel a wound.

The tearing away of Alsace and Lorraine from the mother country by violence has dug so deep a pit between Germany and France that nothing will be able to fill it up. And, as though this operation in the living flesh was not enough, it was aggravated by the Draconian stipulations of the treaty of Frankfort, extorted with knife to throat, and which place our country in a real condition of economic slavery. This rigor of the harsh law of the conqueror would by itself alone justify the revolt of a free people.

Therefore it is not, as beyond the Rhine they are too much pleased to say, because our hostility is ineradicable that it is our imperious duty to foresee war with Germany, nor is it because we were beaten; but it is because our defeat was consummated with a useless refinement of cruelty of which the acute memory cannot be effaced by time. The wound is always open and cannot heal.

I say *useless cruelty*, because the higher objective fixed two centuries ago by the Elector of Brandenburg was attained without that. That Germany committed a grave error in exacting the ransom of a portion of French territory, I for my part am absolutely convinced, for it has rendered forever impossible a reconciliation between the two nations, and, in spite of an apparent forgetful-

ness, this thought keeps up in French hearts the small but never extinguished flame of hope.

It is the military party, all powerful in Germany, which, it is said, demanded that condition; it is none the better for that. Louis XIV had no cause to congratulate himself, either, upon the policy of Louvois and the military party. In both cases the strategy was bad: under Louvois, in sacrificing the navy, of which the rôle ought to be preponderant; under Moltke, in creating for the future a permanent cause of reprisals.

And, if I repeat again that in my opinion Germany made a mistake, it is because I consider that she will not have too much with all her forces, all her resources, and all her faculties, to oppose a formidable danger which threatens her and by which she may well lose the profit of two hundred years of perseverance. The economic conditions of Germany have undergone profound transformations in the past thirty-five years. The trend of her people has changed; from agricultural it has become industrial and commercial. The modern Carthage, she has obeyed with extraordinary enthusiasm the watch-word of her Emperor, who has said to her, "*The future is on the sea,*" and she lives, especially to-day, upon the ocean. But also for her, as of old for the daughter of Tyre, "*danger is on the sea.*" The unprecedented impulse of her economic prosperity necessarily draws her towards the granite rock of the British power; she may well be dashed to pieces upon it.

Is it not, moreover, the very plain expectation of necessary future encounters which impels the Kaiser now to seek a quarrel with us? Are not we the mere screen behind which he seeks to reach the true adversary? Ah! if there were not an always acute question of Alsace, perhaps a glimpse could be caught, for the first time in four hundred years, of the possibility of throwing off the maritime yoke of England. Germany has not wished it so, and that is why we ought to anticipate a war against her which, this time, will be waged on the sea as well as on the land.

A singularly prophetic and disquieting voice has already made itself heard on this subject. Louis Blanc, in his *Ten years of the English people's history*, indeed wrote: "*Alongside of the gigantic struggles that Germany armed might provoke and carry on, the wars of the French Revolution and of the Empire would be no more than children's games. Napoleon, whose point of departure was at one of the extremities of Europe, had a long dis-*

tance to go before striking at the gates of coveted Capitals, and no one is unaware that his eagles were overcome with fatigue on the road from Moscow to Paris; but a German Napoleon would reach in a few leaps all the Capitals of Europe, except Rome. Germany with a military organization and SUPPLIED WITH A FLEET would therefore be nearer than France to universal domination."

These two contingencies create a very delicate situation for the French foreign policy of our times and toss it ceaselessly between the two opposite poles of anglophilia and germanophilia, about the axis of which our diplomatic world turns indefinitely. It would be interesting to show, in this connection, what an undoubted strategical error is contained in the French policy of the seven last years, oscillating in short between Fashoda and Tangier; but I am bound to limit myself.

It is easily understood that it would not be possible for me to pass in review all the special cases of conflict that can be imagined; moreover such a review would be useless, for not claiming to do a diplomat's work here, but having merely sought to indicate by concrete examples how what I shall call political strategy can be treated, I consider that the two principal cases just studied are sufficient.

THE AMERICAN CLOUD.

Nevertheless there are two other cases that I shall treat briefly, because for several reasons they are of very great interest. The question, moreover, concerns powers newly come upon the world's stage, but whose rôle, each day enlarging, attracts attention. From the point of view of the division of strategy that we are studying at this moment, these two cases constitute excellent lessons.

I have already had occasion, à propos of the Spanish-American war, to show the very old beginnings of that conflict. Its elementary causes are of a general nature and are not special to the single case of Spain.

The great island of Cuba was the first objective of the policy of the United States, because, on account of its value, extent, and riches, it deserved to be so favored. But it is not so much because the American government saw in Cuba a good opportunity as because she lay within the sphere of attraction traced by the Monroe

WAR ON THE SEA.

Doctrine, that her divorce from Spain was consummated by force after long and patient attempts at a mutual agreement.

But this famous doctrine, which is the fanatical *Credo* of the Union's policy, was by no means conceived for an isolated case; it applies marvelously to all occasions which afford opportunity to increase the patrimony of the star spangled banner. And Cuba is not at all, far from it, the only satellite which gravitates around that mighty star, the United States. Many other islands in the West Indies are still foreign to them, and it is on that account that several European powers, ourselves in particular, have an interest of the first order in following with the most extreme attention the manifestations of public opinion in America.

The very rapid strides of imperialism in that country, under the strong impulsion of that admirable statesman, President Roosevelt, the feverish activity with which the war fleet grows, until able very soon to dispute successfully the second place in the world, are so many undeniable symptoms of the state of mind which now directs the policy of that people.

For what purpose is the instrument of force, which in a very short time the powerful navy now being built in America will be, if it is not in case of need to compel the acceptance of the Monroe Doctrine? Mahan's lessons, as well as those of the war of 1898, have not been thrown away; beyond the Atlantic the indispensable weapon of maritime power is being forged, with full knowledge of its influence in history.

That the conviction that sooner or later they are to realize the dream of "America for the Americans" is deep rooted in the heart of every Yankee, cannot be doubted by anyone who attentively follows their remarkable evolution. Already constrained for many years past in this way by the teachings of their statesmen, they have found at the most favorable moment, in their present President, an incomparable professor of the doctrine of energy.

It is for that reason that none of the acts, none of the words of this popular leader can be indifferent to us. Scarcely a few months ago, in a much talked-of speech, President Roosevelt, alluding to the rôle of the United States in the West Indian seas, developed the idea that, without meaning to attack acquired rights on those shores, it was the Union's duty not to neglect anything going on there, and that by a sort of natural right they had a

mission of surveillance and even "*of high police, to establish order there if it was necessary.*"

The gravity of such a declaration, especially as coming from such a mouth, could escape no one; it is increased, furthermore, by the very fact of its vagueness.

Many good people, who think no one is moving in the world because they themselves remain congealed in immobility, affect to see in these words merely a warning to the opera-bouffe republics of Haiti and San Domingo; they would even freely applaud the intervention of the good policeman, but they forget that policemen often calm disorders by dragging everybody to the guard-house.

They likewise lose sight, even regarding this interpretation as correct, of the fact that there is no such encouragement to continue as a first success. After having confiscated the actual theater of the disorder in order to suppress that disorder, who could say that the other West Indian Islands will not have their turn? It is so tempting to offer one's good services when the proprietor is not at home and Europe is so far away!

But there exists, it will be said, no pretext for intervention in the islands still belonging to European powers. That is perhaps true to-day, but it will no longer be so to-morrow; the method has undergone the test of experience in the case of Cuba; in the message sent to Congress, two years before the war, President Cleveland laid particular stress upon the great interest to Americans of peace being established in Cuba.

He neglected to admit that the fires of insurrection were stirred up, on one hand upon Union soil by Cuban refugees who were received there with open arms, and on the other hand upon the shores of the island by former revolutionists who had become naturalized American citizens the better to plot without danger, under the shelter of a powerful protection.

The method is not even American, for it has long been known and practiced in the world. In what concerns us more directly, and without meaning to advance ill founded opinions, it may nevertheless be asked if the frequency of disturbances, during recent times, in the French West Indian islands, really has its single origin in internal political difficulties.

One fact, in appearance without significance, well indicates, furthermore, the powerful interest with which the government of the United States watches everything that concerns the West In-

dies. After the catastrophe of Martinique, the eagerness with which this foreign government brought the *first* assistance, and the exceptional generosity of her share in the work of relief in a country so cruelly tried, show that she follows with attentive eye all the destinies of the American islands. It is permitted to think that this generous impulse would have been colder if an island much farther off, Corsica for example, had been its cause. Recent events in Jamaica have given new strength to these impressions.

When such suggestive symptoms are pointed out, incorrigible sceptics of the class so numerous in France, of those to whom disasters have never taught anything, reply that the memory of services rendered and the similarity of forms of government guarantee an eternal peace between France and the United States.

As to the first point, it may be supposed that the events of 1778 are rather far removed from us for their memory to be so lively, and moreover there is no such thing as eternal gratitude. Finally, as to the second guarantee, it is to be remarked that though the *name* is the same for the two countries, the *thing* is very different.

All this, moreover, is of dreamland. History, with its brutal frankness, teaches us that the policy of sentiment is at most good for the Latin races; the Anglo-Saxons have never made use of it.

The danger exists in a latent state, but it is sure; if it can be considered as still far distant, it is none the less necessary to examine it with all possible care.

Strategy offers us two ways of preparing for it, and two only: either to sell the French West Indies to the highest bidder at the best price possible; or to get our forces ready in anticipation of a possible conflict with America, and, in the latter event, the lessons of the Spanish-American war, derived above all from Spain's errors, dictate to us the necessity of establishing at Fort-de-France an immense base of operations, capable of sufficing to *our entire fleet*.

The second solution would be extremely costly, for it is only by expenditures of hundreds of millions that there could be accumulated at Martinique the stores of all sorts, the docks, the defensive works, etc., for a naval force insuring superiority of numbers over the very important fleet which is now ready to leave the ship-yards of America.

Moreover, would that nation allow us to make such an immense effort, out of proportion to the value of our possessions? I do

WAR ON THE SEA.

not think so; for after all the effort would be directed solely against herself, no military interest except that justifying any important sacrifice in the West Indies.

By selling Martinique and Guadeloupe to the United States, we would accomplish a fine and good piece of strategy; I insist upon the word for, far from deviating from our subject, we are showing by this striking example of what farseeing conceptions the military art is made. Unhappily we shall have been able scarcely to glance at the question, but that will have sufficed to make us divine the infinitely varied resources which politics brings to strategy; one is inseparable from the other.

Though these two islands are of little value to us, for they constitute a costly luxury, they would have much value for the United States, on account of their position of advance guard to windward of the West Indian sea. Fort-de-France especially would be for the Americans a naval base of exceptional strategic advantage when the opening of the Panama Canal to universal commerce has drawn into the West Indian sea the fleets of all countries. It is an incomparable advance post. The operation would therefore be an excellent one; it would be a most conservative investment on the one hand and on the other would relieve us of a real anxiety.

In what way would it be more extraordinary than the cession of Louisiana, made by Napoleon in 1803? The Emperor did an excellent piece of strategy that time.

In any event, between these two alternatives, there is no possible half-measure. Above all, let us not do as Spain did when, in 1848, wrapping her tattered cloak about her, she proudly replied to the definite propositions of the United States to purchase Cuba: "*Rather let the island be engulfed in the sea.*" Fifty years later Spain was to lose Cuba, without getting any payment.

THE YELLOW PERIL.

The actuality of the events which have just happened in the Far East, which makes them still vivid in the minds of all, will exempt me from a long argument to explain the reasons which render the extraordinary development of Japan a future menace to us. That nation, born to European life and progress less than forty years ago, has not halted in its advance, and has gained the first rank of world powers.

WAR ON THE SEA.

It is for reasons of a general nature that that enterprising people should be watched, and that preparation for war against them should be seriously faced. They also, obeying the excitations of their leaders, cherish I know not what Asiatic Monroe Doctrine, imagining an Empire of the yellow world under the domination of a "*Greater Japan*." Everything urges them towards this dream of glory: pride in their extravagant successes; their limitless ambition; their race hatreds against Europeans; the desire to free from servitude their yellow brothers; their unlimited increase of population, the surplusage of which overflows their sea frontiers; and finally their geographical position, which with its insular character imposes upon them necessities similar to those of England, and also the same desires and the same vocation.

The disclosure of Baron Kodama's report, which attracted so much attention a few months ago, therefore could surprise only those who had not followed the evolution of the Japanese Empire, or who were not informed as to the conduct of the Japanese in our Indo-Chinese colony.

There is no doubt that Japan, weakened by her very victories, will be compelled for not a few years yet to observe a policy of retrenchment, to repair her losses, to recuperate her overburdened finances and to prepare for new exploits. But even now the moment can be foreseen when, freed from her passing embarrassments, she will resume her racial policy. On that day France, which has become a great Asiatic power, will have to reckon very seriously with Japan. It must not be lost sight of that, beyond the principle of the application of her doctrine, Indo-China, an immense granary of rice, is for Japan an economic spoil worthy in all respects of her desires.

That restless nation, animated by a warlike spirit, penetrated, from the highest to the lowest of her subjects, with the grandeur of the mission which has been given them, aspires to guide the destinies of Asia. Under such a master, conscious of his strength and intelligence, the "*yellow peril*" is not a myth.

For us Frenchmen, if we wish to retain Indo-China, if we consider that magnificent colony necessary to us in view of our economic development, we have only the time strictly needful to make efficient arrangements to meet an onset which is inevitable but which will be the more delayed and the less menacing in proportion as we shall have succeeded in being stronger.

This is not the place to point out in what should consist, for us, the effort to make to defend victoriously Indo-China against the Japanese desires; that question lies outside of the fixed scope of my work, but nevertheless I will say that we must expect this effort to be *considerable*. Let us remember Spain in Cuba, and Russia in Manchuria, and we will then think that, however great the expenditures to be made in our Asiatic possessions to allow us to retain them, they are nothing in comparison with what we should lose in a disastrous war.

And here again it is necessary to weigh the expense which the assured protection of the colony would require against the value of that colony. If the latter is greater, no hesitation is permissible: we must prepare for the contest, and that without loss of time, to-day even, in order to put a timely restraint upon appetites that we recognize. Finally, one single thing is not permissible, and that is the policy of bandaged eyes and ears, which perceives the storm only when it breaks and when it is too late.

If at the beginning of this chapter it has been possible for a moment to believe that I wandered from the subject in taking up the questions which are treated in it, I dare to hope that such an impression has little by little passed away.

Nothing is more necessary to strategy than the precise determination of objectives, and I have wished to show above all that their selection ought not to be the outcome of a simple outburst of sentiment, of temporary conditions or chance, but that it ought to depend upon the permanent interests of the country.

I repeat it once more, because the subject is too serious not to permit reiteration—it is by a never ceasing collaboration of politics and of purely military strategy that one prepares himself for war.

Is it not also the former which arranges the alliances whose conclusion has a direct effect on military strength? At each page, so to speak, of maritime history, we meet examples of these alliances, between England and France, between England and Holland, between France and Spain . . . ; but these alliances, putting in play military forces whose relative displacement exercises an immense influence in the final balance, concern military strategy primarily. General strategy is made of their aggregate.

Finally, were it only for a single result, this chapter will not have been useless. It will have shown us, in fact, in the four ex-

WAR ON THE SEA.

amples which I chose solely because they concern us to the highest degree, peoples on a continuous and persevering march towards an always greater development. Whether we consider England, Germany, the United States, or Japan, we see nations knowing admirably what they want and wanting that strongly. And to attain to it, they utilize the two most powerful factors of strategy: *continuity of effort and national energy.*

CHAPTER IX.

PREPARATION FOR WAR: ITS PRINCIPAL DIVISIONS; WEAPONS AND THEIR EMPLOYMENT; PROBLEM OF THE BATTLE FLEET; NAVY YARDS, ETC.

If, as I believe, all the facts set forth in the preceding chapters have produced a lasting mental impression, it is unnecessary to insist upon the exceptional importance of the subject we are now to take up. It dominates the whole military art, and final success in war depends strictly upon the good or bad application of the principles upon which the vast program of preparation for war is based.

If we but glance at the past, many memories will come thronging upon us. Spain, Holland and France successively lost the empire of the seas because they had not prepared for war. England conquered France in 1805 through the genius of Nelson and the excellence of her fleets, but she also benefited largely by the naval improvidence of her adversary and the lack of training of his squadrons.

Italy was beaten at Lissa because she thought that an assemblage of materially powerful ships was enough to insure naval victory; she forgot that a fleet without a leader, without instructed and trained crews, is but a body without a soul.

Spain lost Cuba from having adopted the stupid policy of the ostrich, that hides its head under the pebbles so as not to see the danger; the lamentable Odyssey of Cervera is not of those that can be forgotten.

Finally, the overthrow of the power of Russia in the Far East was due to her not having for a moment anticipated that another nation which, for its part, had long been preparing, would one day stand up against her.

Thus, whether the question be looked at from one side or the other, from that of the conquered or from that of the conquerors, the evidence of the preponderant and decisive importance of preparation is plainly to be seen.

This proposition no one denies, because the experience of all

times is too conclusive to permit doubting it, and no principle is less disputed.

It is when the question of applying it arises that difficulties begin; for if there exists but a single correct and sure method of preparing for war, as I hope to demonstrate, on the other hand there are a thousand sentimental ways of understanding that preparation.

And immediately an important question requires elucidation. Ought we to study this preparation counting only on the resources that we have at the moment, or seeking, with a view to gathering them together, those that we ought to have? The question is a large one, as may be seen, but it must be answered. I shall do so with the entire frankness that the most elementary professional honesty imposes upon me; and that is why we are to study, before anything else, in this chapter, the means that *would be* indispensable in order to carry on a war with a chance of success.

No doubt can exist when the question concerns a nation like England, habituated through long centuries of usage always to follow the same way, regardless of change of instruments; she has but a single method of preparing for war, the good one, with tools that she has known how to make in time.

But it is not the same for most nations, who have experienced successive phases of wise plans and of weaknesses. If we were not so pressed for time, it would be of the highest interest for us, Frenchmen, to study throughout our naval history the ups and downs of our preparedness for war and the influence of the lofty views of Richelieu and of Colberts upon our success in warlike operations. As things are, practically, for a people resolved to break definitely with worn out methods and frankly to adopt an organization conforming to military principles, there ought to be two distinct preparations. The first, wholly one of transition, intended to meet the most urgent needs, will base its combinations upon the existing means, whether sufficient or insufficient; the second, simultaneously, will establish the really necessary requirements called for by the military conception and will gradually take the place of the first until it wholly replaces it when the task is definitely completed.

It was very late for Spain to prepare for war, in 1898, with what she could call then "*the actual means*"; likewise there was no longer time for Russia, in 1904, in similar circumstances.

The French effort of the autumn of 1898, to stand up against the alarm of Fashoda, was itself also very tardy. Nations which allow themselves to be surprised by Fashodas must be severely blamed and also pitied; they leave nothing to their navies but a single duty, that of saving the national honor by a desperate resistance. Great designs are forbidden to them.

To comprehend why I shall only treat of preparation in the broadest sense of the word, it is enough to consider for a moment that the employment of existing means falls within the province of the General Staff, that I have in no way knowledge of its views and that I should even be much embarrassed if I had to set them forth, not only on account of their confidential character but particularly because, in complete ignorance of certain higher reasons, it would be impossible for me well to explain the facts.

To cite but one example, while history teaches us, and I am truly obliged also to affirm it, that the principle of homogeneity of forces is fundamental, our Northern Squadron yesterday was still a heterogeneous assemblage without cohesion and consequently without well balanced strength. And there is still more; we know likewise that "*concentration of efforts*" and "*the exclusive character of the aim*" are incontestable truths. How should I succeed in reconciling the actual scattering of our naval forces, in formal violation of these principles, with the lessons of experience and my exposition of the doctrine?

I should be obliged to conclude that, if our Northern Squadron is to this day a composite of diverse units, if we are weak everywhere, it is because there are profound reasons of which I am ignorant, and this response would satisfy no one, especially not myself.

Another argument can be furnished which militates in favor of a study quite general in its nature, in conformity with the doctrine. If I take a question haphazard in the very overloaded program we are to accomplish, let us say, for example, the store of coal at Saigon, and if I say that we actually have in that port a stock fixed by regulation at 12,000 tons, every one will ask of me: "Why 12,000 and not 10,000 or 14,000?" And, in fact, we put our finger on the knotty point.

Even the simplest acts, the most unimportant, which have war for their object, ought all to be inspired by a military idea. In order that the figure cited above may be accepted, it is wholly nec-

WAR ON THE SEA.

essary to say what the naval force is whose needs it ought to satisfy, and also what is the predestined employment of that naval force, or, to speak more exactly, it is necessary to determine first of all what the naval force is that satisfies a precise military objective, to decide upon the operations that will be intrusted to it both as to number and duration, and finally to calculate as the last step the quantities of fuel indispensable to permit the said operations. In a word, the stock of coal is the unknown quantity of a military problem. We could multiply examples, we shall always reach this same conclusion.

So it is in this manner that we shall proceed; it matters little, moreover, whether the results at which we arrive are more or less exact; I do not pretend to undertake, by myself alone, a colossal task which belongs to the General Staff. The method alone is to be borne in mind. Any other would lead to writing a book of instructions without scope and without connection, by the use of figures taken from the various bureaus of the Navy Department.

I cannot insist too strongly upon the necessity of a military reason as the basis of decisions apparently most insignificant; for, in many countries, too often, especially in what concerns the furnishing with stores and the enlargement of stations of repair and supply, etc., the adopted procedures have been inspired by the narrow intelligences of bookkeepers exalted, through the favor of those in power or of circumstances, to functions too lofty for their puny capacities. It is the duty of the military chiefs to order these subalterns back to the ranks with an energetic: "*Cobblers, stick to your lasts.*"

Thus set forth, the subject discloses immense complexity, and we ought to think ourselves fortunate if, in the space which is parsimoniously measured out to us, we succeed in sketching it in broad outline.

THE PREPARATION OF WEAPONS.

THE GUN.—Battle ought to be the objective of every war; but, to fight, weapons are necessary, and it follows that the study of the weapons best suited to the struggle which it is proposed to sustain is the most urgent of prerequisites. Among the various weapons that can be imagined, there is one to which the very human wish to crush one's adversary the soonest and the furthest off possible has long ago assured the first place.

The most urgent first requisite ought therefore to be to study the rôle of the gun and the method of using it and to choose its characteristics with a definite military point of aim. Although the expression point of aim has a double meaning, in both senses it represents very well what I wish to say. It is, in fact, in its relation to the targets against which it is proposed to use it that the gun must be chosen.

The detailed and minute examination of the war ships of the powers with which we are liable to have conflict is, consequently, also a necessity to some extent disadvantageous. It would suffice, besides many other reasons, to explain why it is indispensable to fix initially the political objectives. That point settled, the task of the military man ought not be limited to inquiring what are the probable effects of the projectiles at his disposal against foreign ships *in service*. By so proceeding he would commit a great error; to avoid it, the fact that the weapon proposed to be forged will not be ready till several years have elapsed must be taken account of. Therefore the ballistic power of one's artillery ought to be established so as to suffice for the attack of the fighting units which are themselves *in preparation* in foreign countries.

It is painful to have to state that, in the French navy, this fault has constantly been committed; and yet it violates an unchanging tradition, familiar to all, in the amiable and profitable struggles of industry and commerce. When a manufacturer, in fact, wishes to beat a competitor, he does not limit himself to seeking an improvement which would put himself simply on an equality; he endeavors to study the methods of his colleague, and the trend of his ideas, in order to realize *before him* an undoubted betterment. In war the method is the same.

A concrete example will better explain my thought. Very few people in our profession would to-day deny that the battleships of the *Patrie* class will be somewhat out of fashion on the day when they join the fleet for service. This is not at all due to the slowness of their construction; they had within them, in fact, this original defect even on the day of their conception.

I shall probably treat this whole question later with the attention it deserves. For the moment, the gun only concerns me. Now the explanatory statement relative to the program of these projected ships, alluding to their armament of four 12-inch and eighteen 6.5-inch guns, contains the following phrase: "*With such*

arrangements, this battleship is the most formidable engine of war which has yet been built by any navy." One cannot help being struck by the surprising error contained in these few words; I pass over, be it understood, the venial one of the wording which applies the precise term *built* to a projected ship, and I come to objections altogether serious. The above phrase, as well, moreover, as the entire explanatory statement, in the comparison with foreign battleships, is absolutely silent as to the characteristics of the projects likewise being studied, at that very moment, in rival navies.

This omission is the more regrettable because England was preparing the *King Edward VII* class, notably superior to the *Formidable* and *Majestic* classes, etc., which were alone cited in the program of 1900. To further emphasize the error of principle, I will call attention to the fact that the *King Edward* is already in service, several years consequently before the *Patrie* and her sisters. Therefore the guns of our 14,000-ton battleships should have been designed to fight efficiently ships like the *King Edward*. The rigorous proof that this is not the case, beyond those already given, is found in this statement that the 6.5-inch gun, at the practical fighting distances adopted at the battle of Tsushima, is quite impotent against the *thin* armor of the English battleship.

It might be alleged in excuse that in 1900 the Russo-Japanese war had not taken place and that, consequently, lessons yet to come could not be profited by. To show the exact value that must be given to this excuse, I will observe that Tsushima did but afford a striking confirmation of ideas already brought into prominence by the Yalu and advocated since then in all navies, including our own, notably in 1896 and 1897. The unfolding of these ideas coincided with the appearance of the *rapid-firing gun and smokeless powder* which, by permitting regulation of gun fire at any distance, have favored the intuitive and unconscious progress of humanity in the search for battle at long range.

And immediately we perceive what an exceptional place the logical choice of weapons holds in the chapter of preparation for war. It is very late to question in private life how to repel an aggression if one has with him only a slender switch; care should have been taken, *before going out*, to provide oneself with a stout cudgel. It is likewise too late to discover that one's guns are insufficient once they have been built.

Once more, therefore, the study of this chapter must be based upon what we ought to have.

"Experience is the only source of truth; it alone can teach us anything new, it alone can give us certainty." (*Science and hypothesis. M. Poincaré.*) We shall establish our method of selecting weapons upon this fine maxim; we shall demand from experimental facts the data necessary to determine our choice.

And, consequently, every time that the features of a program of new ships are to be prepared, it will be necessary to recur also to this method. What are the ships that are being prepared by our neighbors, what are the dimensions and what the thickness of the different parts of the hull, what resistance will they offer to the penetration of projectiles, at the extreme fighting ranges practically used in known wars—such is the logical and rigorous analysis of the problems of detail which it will be necessary successively to resolve. The perforating power to require of the projectile, and consequently the minimum caliber of gun furnishing the required useful effect, will naturally derive thence.

This manner of acting is the only one which suppresses the vague solutions of sentiment and reduces to a minimum the part played by chance.

THE TORPEDO.—The process is the same for the torpedo, and, in a general way, for all weapons. The solutions thus far accepted for the use of the torpedo show the effects of the dearth of experimental facts concerning it. Moreover, its adoption for the armament of ships of war has occasioned the most varied transformations, without the principle itself, any more than the variations, having received the sanction of experimental test. Are under-water tubes preferable to those above water? The question doubtless merits discussion; but another of much greater importance ought first to be settled, which is whether the torpedo is truly a weapon for ships of the line. It may easily be understood that, if this essential point be decided negatively, the discussion of details would not even be proposed.

It is therefore the organic principle that needs to be elucidated, and in this respect the teachings of the late war will be very useful to us. In reality, it is in their intimate relations with each other that the different weapons must be studied. United upon one ship, they converge towards a single effort, the destruction of the adversary, and the action of each of them is necessarily dependent

WAR ON THE SEA.

upon that of the others. It is therefore quite inexact to reason as has always been done, as is too often still done, upon the isolated rôle of each of them.

For the torpedo a new development also is foreshadowed, and it seems as if a struggle similar to that which still continues between gun and armor is about to open. The resistance of the special protection of the *Cesarevitch* to the explosion of a torpedo, in the night of February 8, 1904, has awakened many hopes. To appreciate their value, there is need to investigate what new conditions of power the torpedo must satisfy, in the future, to destroy these hopes, and whether such conditions are attainable. For this weapon, as for the gun, it is therefore truly towards the future that we still must look and not towards an insufficient present.

THE RAM.—I wrote, a few lines above, that weapons examined from the point of view of the real value of their action were inseparable one from the other. I find a striking example of this in the case of the ram.

No weapon has given occasion to overflowing enthusiasm more than this one; it has had and it still has fervent and convinced advocates. And yet, to support such very strong convictions, there exist after all only very meager experimental data, that is to say a few isolated scenes of the rather restricted theater of the War of Secession, and the incident of the *Ferdinand Max* and the *Re d' Italia* at the battle of Lissa. In this almost general infatuation which still lasts, no voice of reason has been raised modestly to call attention to the fact that the gun in neither case took any part. It is therefore truly the separate examination of a weapon without connection with other weapons which has had such a remarkably lasting influence upon opinions.

If the question of the use of the ram is to be opened anew and fully considered, it is indispensable to examine it in the light of more modern examples.

THE FIGHTING SHIP.

With what we have already learned, we possess henceforth the desired data for taking up the complex and important problem of the fighting ship. I have well said *important!* What then is the prime necessity, in the infinite unlimited field of preparation for war, which can, in fact, in the material order take precedence

of that of giving to one's country the most suitable instrument for imposing respect upon all? Has not preparation for war been justly symbolized, always, by the popular expression *to forge its weapons*?

Few problems are so difficult to solve as this one, for it apparently admits of an infinity of solutions. It is not sufficient, in fact, to place weapons on a war ship; it is further necessary to protect them from the adversary's blows, it is also necessary to protect the ship itself, in such a way that an unfortunate blow may not instantly suppress the weapons by destroying the stability or the buoyancy of their floating platform.

It is no less indispensable to endow that floating platform with qualities of enduring mobility, which enable it to be brought at the right moment to the place of action.

Up to this point everybody is in agreement; but the difficulties begin when the question arises of determining to what extent the fighting ship shall be provided with the diverse qualities we have just enumerated, when, in a word, each of those qualities is to be measured out so as to reach the final compromise which every war-ship is. To note the passionate controversies which, to-day as always before, go on about the most widely different types, it would seem that the problem was in fact impossible; but, if these various special pleadings are attentively read, it is quickly perceived that they are almost all based upon the same system; affirmation without proofs, sentimental opinions beyond verification. Military inspiration, the master thought of every preparation for war, is lacking to them, whereas, on the contrary, it is the guiding thread which must never be abandoned in order not to be lost in the chaos of ready-made ideas.

In speaking of the battleships of *Patrie* type, then projected, to compare them with foreign ships, an official document was couched in these terms: "*None is better protected, better armed, or faster.*"

Whatever the respect which I profess for the opinions of others, and particularly when they emanate from those who direct our navy, it is impossible for me, *here*, not to point out the very gross error contained in the few words I have just quoted. If such contradictory conditions could be simultaneously realized, the philosopher's stone would have pretty nearly been found.

In the compromise which a fighting ship really is between these

multiple requirements, it is absolutely necessary to sacrifice some qualities to others; the only difficulty, I repeat, lies in the measure of this sacrifice. And the guiding thread of which I spoke above, the military doctrine, alone will permit us to determine this measure.

With the great captains of all epochs, Alexander, Cæsar, Hannibal, Frederick and Napoleon, with Suffren and Nelson, also with the great military writers, Clausewitz, Rustow and Von der Goltz, and finally with Mahan, we admit the capital strategic value of the offensive.

It is therefore to the offensive weapon par-excellence, the gun, that the paramount position ought to be given on a fighting ship. The greatest possible number of guns, of those which meet the minimum conditions requisite for that weapon, such is the formula.

A second factor of the offensive is speed: its requirements cannot be neglected, and its rôle admits of a discussion the more profound that agreement as to its value is rare; and that value is itself also necessarily relative. To determine it, it is likewise important to establish a comparison with ships projected in other countries. All the problems of war are concrete problems.

It remains to assure protection, and it is principally on this point that there are disclosed numerous heresies daily set forth. They all derive from that limitless trust, to some extent innate, which men accord to protection, and which leads them unconsciously to exaggerate it. It is this state of mind that has given birth on shore to fortresses with enormous walls and on board ship to water-line belts whose armor was never thick enough.

Instinct, from the beginning of the earliest hostilities, has impelled men to seek shelters from behind which they could give blows without receiving any. The long education of centuries of warfare, stimulated by the initiative of a few great captains, has been necessary to show that there exists a surer method of defending oneself, which consists in destroying the adversary by attacking him with fury. This instinct of self preservation is so strong that the valuable idea under discussion is not even at this moment, as we must admit, understood except by the élite.

"The best protection that we can have against the enemy's fire is a well directed fire from our own guns." No one was better qualified than Farragut to express himself thus, and his deeds

have proved the excellence of this opinion. It is one which the search for basic principles has suggested also to us.

The rage for excessive protection has not its only source in instinct; it is also nourished by the chimerical and barren hope of reducing risks. The association of these two impulsive sentiments always causes the risks to be seen through a magnifying glass. The military idea alone can save us from exaggerations.

FLEETS.

It is particularly in the preparation of fleets that the military idea must be called upon to give us sure guidance in the task of multiplying the fighting unit thus decided upon in order to secure real naval strength. The constitution of fleets appears, indeed, to be one of the most important factors of war. However great may be the value of an isolated fighting ship, yet it is but a single unit, and forces are necessary to obtain superiority. The association of several units, that is to say the fleet, or, using a more modern appellation, the squadron, is the material embodiment of the idea of naval force.

The figure fixing the number of the units that ought to compose this elementary naval force evidently cannot be an arbitrary one; it ought necessarily to flow from the principles of war and from experience. Our squadrons in France comprise six ships; why? It is something about which we cannot remain silent, for it does not suffice to evade the difficulty by the vague formula: "*It is generally admitted that squadrons should have six units.*" This *generally* is, moreover, limited to the French navy; since in Germany as well as in England the squadrons of ships of the line are composed of eight or nine battleships.

The choice must be made by weighing all the considerations, strategical and tactical, which permit combining the maximum manœuvring facility of the adopted grouping with the minimum division of command.

The main fleet once constituted, there is need to determine the practical conditions of its employment. The function of this main fleet is to move about in order to offer battle; it is necessary to precede it with look-outs for the same reason that an army on the march has need itself to reconnoitre. And at once there is occasion to throw a little light into a corner of the subject which dis-

WAR ON THE SEA.

sertations more numerous than the grains of sand on the seashore have not a little contributed to obscure.

I have only spoken until now, it will be noted, of a single type of fighting ship, as being in fact the unique solution of the problem set and solved by the military doctrine; and if I have made no allusion to others, it is because there are no others.

There are frequent occasions to observe an abuse, in writings upon this subject, of a familiar expression: "*the division and specialization of labor*," when the question concerns the advocacy of such or such a type of ship. This law, constantly applied in trades, can very well be justified in the affairs of war, but upon one definite condition: that is, that it be not applied at random, as is most frequently the case. This law is invoked to justify the conception of new types, not differing in any essential way from ships of the line properly so-called, and to which there is assigned I know not what vague and indefinite rôle in far off seas. It is not observed that thus the first step is taken on the downward path which leads to the specialized classes of the colonial fleet, which were explicable when powerful navies were localized in European waters, while the war ships on far off stations found only savages to combat. All navies have given up these foreign-station fleets, we ourselves have abandoned them with much regret; this is not the time to make them rise again from their ashes.

We must not for a single moment forget that it is the labor which it is necessary to divide and not the tool. But the labor which we are here considering is war; the main business of that labor is fighting, and we have rightly set apart for it the fighting ship. This ship will be, moreover, of a single type, since to-day fighting is carried on the same in the Sea of Japan as in the Mediterranean, in the United States the same as on this side of the Atlantic. But to facilitate the execution of the principal task, other labors of lesser importance, such as the lookout service and reconnoitering for example, will be usefully intrusted to ships in which everything will be sacrificed to the perfect accomplishment of their accessory labors. These will be fast ships, good sea boats, having no other function than to see and to watch for the main fleet. It is the province of the General Staff to decide upon the general features of these ships, ceaselessly guided by the necessities of war.

Other ships, normally employed in peaceful pursuits, passenger

or freight carriers, can very well fill this rôle in time of war. But it is during the period of peace that it is needful to regulate to their smallest details the armament, mobilization and future employment of these auxiliary cruisers.

In this connection, I greatly desire to refute at once a reasoning by which it is pretended to assign nowadays the function of lookout which we are discussing to the class of ships commonly called armored cruisers. Let us observe that these ships are themselves fighting ships and that already, by assigning them to this too unimportant use, the true principle of the division of labor is violated.

But it is said: "To push back the enemy's lookouts, it is necessary to have some that are more powerful than they are, and as those ships will encounter in their turn similar ships, they must be able to fight." This argument is so insidious that it is readily accepted and we are then fatally led on by it to types of cruisers bigger and bigger, more and more armored, and to building a new fighting fleet alongside of the first one. I will add that we would infallibly arrive at an identical result by similar reasoning with the torpedo-boat taken as the starting point. This is further evidence that it is necessary to hold tightly on to the guiding thread of military doctrine so as not to go astray.

Whether the question concerns the construction of fighting ships or of scouts, this military idea imposes homogeneity. It dictates the number of absolutely like units which it is necessary to build at the same time, in order to substitute a new naval force for another one actually existing and composed of old units. And, in fact, navies should be strengthened and kept up to date by adding to them homogeneous naval forces, not units. The former system, by maintaining the principle of homogeneity, preserves the correct balance of the forces; the latter constantly compromises that principle, and ends by making the national fleet what has very justly been called a *museum of samples*, under the appearance of making each of the successive units profit by actual improvements. And this result always comes precisely from lack of foresight.

An example very much to the point is at hand to illustrate this: It is well known that in the course of their construction several battleships of *Patrie* type had their armament changed, their 164.7 mm. guns being replaced by 194.4 mm. guns. This measure, in itself excellent, the increase of power due to the sub-

stitution being considerable, is to be regretted in its application, because it was not applied to all ships that are to constitute the naval force. The six battle-ships of *Patrie* type are in fact intended to fight always grouped together; it follows that the fighting range favorable for the 194.4 mm. guns will render inefficient the intermediate batteries of the battleships that are not provided with that caliber, and that any other range, favorable for the 164.7 mm. guns, will make superfluous the excess of power of the armament of the other units. The change should have been made on all six ships or on none. This measure is bad, because it does not accord with the military idea.

Yes, beyond a doubt, the improvements of all sorts that the industrial world offers for the use of the navy cannot be too largely applied to the bettering of fighting ships building or projected; but they ought to be utilized in successive stages by applying them to each of the strictly homogeneous squadrons successively constructed and not to units.

This question of naval progress is one of the greatest cares of preparation for war, and, on that account, it ought to be strictly subjected to the directing body which bears the heavy responsibility of that preparation. No good military prevision is possible if a single wheel in the train escapes this control. To this directing body, and to it alone, it belongs to give the impulse which guides *all* investigations having naval progress in view, because it alone unfolds the military idea. On this account all the services of investigation and experiment, laboratories, proving grounds, experimental commissions, etc., ought to be rigorously subordinated to it; it alone is capable of dictating the programs of investigation, of pointing out the way in which it is necessary to pursue them, for it alone determines the objectives. An improvement may be wonderful when considered by itself, and yet have no value if it fails to meet the higher aims of war.

Military needs exercise their controlling influence upon even the smallest details of ships, not at all, I hasten to say, to interfere in their management or their selection—that is the engineer's affair—but to determine the adoption of their principle itself. In this connection, it is not bad to recall the perfectly useless discussion which began in the navy, and which is still going on, upon the question of boilers.

I am far from ignoring the excellence of the reasons that have

been given on one side and the other, by experienced technicians, in advocacy of such or such a model; but these reasons are the arguments of *workmen*, if I may so express myself, and, whatever their importance, they would have no weight if sure military advantages were found on the other side.

Finally the simplification of the complicated mechanism of our modern ships is also the constant concern of preparation for war, since it exercises a direct influence upon supplies.

The greater the variety of apparatus in service use on board ships, the correspondingly more numerous are the classes of spare parts, and also the more complicated and costly will be the task, already colossal, of preparing the supplies of every kind which support the life of fleets. It is therefore a necessity of the first order to facilitate this task, already overwhelming by itself and a military necessity, for the financial resources available for preparation for war are necessarily limited in *every country* in the world. The quest of the greatest military return from a given financial effort is, in reality, the principal problem of the preparation. Therefore every measure that tends to diminish passive resistances, that is to say small unproductive expenditures, in order to transfer them to the augmentation of forces, thereby increases the military return and the national strength.

That is why, and no serious objection can be raised on this point, "*the last say*," as the English, who are good judges, call it, ought always to belong, in all naval discussions without any exception, to the body alone responsible in the wars to come, the General Staff.

TACTICAL EXERCISES.

Our fleets are ready; they have been constituted with a view to war, it is now necessary to put life into them, to *prepare* them with a view to battle.

The division of the preparation for war which has very improperly been called *Tactics* has but very distant relations with naval tactics. There is an ambiguity in the use of the word that it would be very desirable to get rid of by choosing another expression like "*School of Signals and Evolutions*," for example, as, in the same order of ideas, we speak of the school of the soldier, of the company, battalion, regiment, etc., or of schools of gunnery.

Reduced to these proportions which are alone exact, it occupies

WAR ON THE SEA.

nevertheless a considerable place in the patient and laborious labor of times of peace.

Squadrons are prepared to execute in presence of the enemy the combinations of battle tactics by practice exercises and a regular methodical training accustoming the units to manœuvre together. The necessary readiness in the attacks and replies which take place on the field of naval battle can only be acquired by a long, very long practice in the fleet evolutions of peace times. It is only possible, at that decisive moment, if the personnel which directs the different units of the group possesses the confidence borne of the practice of frequent exercises. This necessity of training appears so much the more urgent because the use of signals during action must be restricted. Perfect obedience to the instructions of the chief on the field of action itself can evidently only be secured, without signals, if all the subordinate leaders of the naval force have identified themselves, so to speak, with the idea of the chief, by the constant practice of manœuvres in common.

A result so important evidently cannot be secured without frequent puttings to sea of the squadrons, without exercises that, as nearly as possible, resemble probable occurrences of warfare, without spending money, consequently. Above all it cannot be attained except under the guidance of the military idea which controls the preparation of war.

Whatever may be the ability of those who command the squadrons, it is not in accord with good preparation for war to leave to them the initiative of the method of training those naval forces. Their task of carrying out of that training is sufficiently important to require their full attention. But in order that the result obtained may be beneficial, it is wholly necessary that the method of instruction be general and dictated by a superior will, the very one which bears the heavy responsibility of future war.

Any other procedure is eminently bad, since it leaves to intelligences, to capacities and to temperaments which are essentially variable, since the commanders-in-chief themselves change, the care of one of the principal duties in the preparation for war. We must not be surprised therefore if profound modifications in the direction of evolution of the naval forces, in the ideas that are revealed by the manœuvres and, what is more serious, in the very principles of fighting, happen in turn in the course of a few years.

WAR ON THE SEA.

I do not propose to stifle individual initiatives ; no navy in the world has as much of that, perhaps, as ours, but it is necessary to direct them in certain channels. And, in saying this, I think in spite of myself of a frequent scene in our life on board ship, and one very familiar to us. The watch has manned the falls to hoist a boat ; the men strain on the ropes but still the boat does not budge. Look closely at the conditions under which those men work ; each is exerting himself individually, but the fatal discord of wills produces the disaccord of forces which mutually interfere, and the resultant is nil. Suddenly the boatswain's pipe sounds and the scene changes ; its modulations as they rise and fall mark time for the elementary efforts, which become synchronous and multiply their actions. The boat is hoisted.

I ask nothing but this for preparation for war ; it is necessary that everybody obey the pipe of the boatswain, who in this case is the directing body of the General Staff. To realize what is the devout wish of all, the "greatest navy," an outward discipline that is often a mere mask is not enough, there is needed above all the discipline of thought which is the ideal that the establishment of the Naval War College was precisely intended to bring about.

Squadrons can only be successfully trained by a methodical graduation of exercises, impossible to realize without the continuity of convictions that a central directing body alone possesses. This is so well understood in all the thriving navies, that the program of squadron exercises is drawn up by the General Staff, or whatever takes its place, for a whole year, and regulates the progression of the instruction, beginning with that of each ship, then continuing with that of the divisions forming the elementary grouping, next with the squadrons, and finally concluding with the annual grand manœuvres. It has been too often forgotten, in France, that the full benefit can only be derived from an assemblage of units if each of them has received, as a preliminary and by itself, its individual initiation. The assemblage of units can give only bad results, if the ships have not freedom to work alone as often as possible.

NAVY YARDS.

The instrument being prepared and quite ready, more still remains to do. In preparing for war, we are doing above all a work of prevision, and consequently it is indispensable to think of the

WAR ON THE SEA.

maintenance of this instrument, taking the word maintenance in its broadest sense. Thus it is that, *concurrently* with the construction of a new fleet, there arises the obligation, from which no country can escape, to build dry docks, workshops, tugs, lighters, coal barges and storehouses, in a word the means of action that sustain the life of this fleet. I strongly insist on the word *concurrently*, since it would be too late to await the entry of the new fleet into service before solving these apparently secondary problems.

Thus then every new program of new constructions ought of necessity to include an additional section devoted to all the works to be undertaken in the ports with a view to meeting all the requirements, without exception, of the new types. This imperious necessity would suffice to make evident, if there was still need of it, the legitimacy of what I have already stated, that the choice of new fighting ships plays, in preparation for war, a considerable part, so great a part that it could not be justified if it were not strictly subordinate to a military idea as well as to a military objective.

Nothing could excuse carelessness in such a matter; fighting ships, especially in the last ten years, in all navies, have obeyed an irresistible impulse toward increase of displacements, owing to increase of speed, of protection and of armament. At this very moment, everywhere alike, there is preparing a new jump to the extraordinary displacements of 18,000, 19,000 tons. For my part, I see nothing objectionable in this, but on the formal condition that all the consequences of the notable increase of dimensions of our ships be given mature consideration. In five or six years from the time when the first keel plates of the new ships are laid will we have big enough dry docks for them? Will the inner channels of our ports be large enough for them to manœuvre and swing in? Will we have tugs in sufficient number and of sufficient power to move them about? Finally, will we have enough landing stages, lighters, storehouses, mooring places and wharf room, mooring anchors, etc., to enable this new naval force to be outfitted in the most efficient way?

If the construction of new types is a military necessity—and how admit of such expenditures if it is not—there can be no escape from the obligation to satisfy all these demands and to supply the Navy Yards with everything which they need, soon enough

WAR ON THE SEA.

for the new fleet to be provided with everything on the day of its entry into service.

It may be seen from this too brief enumeration that preparation for war cannot be unmindful of the question of navy yards.

Here, where we are only sketching in broad outline the general view of the problem of preparation in order to show all its needs, I shall limit myself to this simple observation. It is even more necessary that the organization for furnishing stores and supplies should be under military control. The benefit that is derived, in the case of modern armies, from the direct dependency of the commissariat upon the commanding officer has long been recognized. This benefit is no less great in the case of naval operations. To assemble at a certain number of points, judiciously chosen, the fuel, the oils, the provisions, the spare articles, the ammunition, etc., in a word the enormously complex aggregate of things without which a group of ships cannot subsist, constitutes a fundamental work of war.

Consequently its control cannot in any way be confided to others than those who have the charge of preparing for war. And first of all, is not the determination of the points at which the said supplies ought to be concentrated dependent beyond anything else on the plan of war? Is it not equally subordinated to the execution of the operations? To cite but one example which particularly concerns us, it is self evident that in the case of a naval war against a power of the north of Europe, a project of supply that should simply provide the respective allowances of the Northern and Mediterranean squadrons, one at Brest, or Cherbourg, the other at Toulon, would be far from meeting the requirements of the war.

The plan of operations being settled in its main features and in its essential details, the scheme of supply and its execution are a faithful copy of it. If we select Bizerta as principal base of operations to satisfy our military objective in the Mediterranean, it is at Bizerta that the resources of our naval forces must be concentrated without stripping Toulon. If we anticipate a strong effort to be made in the North, necessitating sending there our Mediterranean squadron, it is necessary, without losing a moment, while the new fleet is building, to assemble in the navy yards of the Atlantic and the North Sea the supplies needed by the whole fleet, in order that that fleet may find them at the hour and place desired.

WAR ON THE SEA.

It is only necessary to set the problem in order to judge how incompetent the administrative service is to solve it; it is so by definition, and yet it is too often upon this body alone that the crushing and once more wholly military responsibility of this division of preparation rests.

And here again, in face of the difficulties of the task, we cannot but profoundly feel the importance of simplifying the material on our modern ships and of limiting improvements in it to those that are strictly legitimate.

COAST DEFENCE.

This accumulation of supplies of all sorts, at various places on shore, evidently represents a considerable financial effort; but it above all symbolizes a military effort, since it forms an integral part of the naval force it feeds and keeps alive. On this account its destruction by the enemy would break the balance of forces in his favor and ought to be guarded against. In mentioning such considerations, I am entering upon the subject, so important, so little understood, and yet so simple, of the defence of the coast.

In the eyes of the masses, as we have already observed in the course of the history of the Spanish-American war, this expression defence of the coast awakens the idea of a sort of gigantic coat-of-mail covering the entire shore and protecting it from any wound. Even the smallest straggling village of fishermen, hidden at the back of a bay, dreams of and demands an inviolable cordon of batteries, forts, guns, mines, torpedoes, sub-marines, etc., without counting battleships and other floating forts. No conception of the defence is more dangerous and more false besides than this one, for it leads to nothing else but a scattering of efforts instead of their concentration. It is this which has brought about the construction of battleships called coast-defence ships, the inadequate realization of an inexact idea, because it was not in conformity with military principles.

As always, in fact, it is from the military idea and from it alone that guidance must be sought in choosing the points to defend, that is the bases of principal and secondary operations for the use of the military force, that is to say of the fleet, and only of the fleet, and also in properly distributing, at different points of the ports to be defended, the various means of defence at our disposal.

But if the points of the shore to be defended are very few in

numbers, it is wholly necessary on the other hand that their defence be extremely strong, the strongest possible. The fleets ought to find there, in short, an absolutely sure shelter and an invulnerable protection, so that the operations of supply and repair may be carried on in the perfect peace of mind that is inseparable from the thorough and rapid execution of such operations. And furthermore the strength of this defence ought to be such as to suffice by itself surely to repel any attack of the adversary, so there may not be even a temptation to divert the fleet from its thoroughly offensive rôle to a passive employment that is not proper to it.

I continue to dwell upon this subject, for the still vibrating echo of the lamentations of the people of Cette, on the occasion of an incident of the quite inoffensive grand manœuvres of fifteen years ago, is an indication of the much more violent outburst that would occur in case of war. Public opinion, therefore, must be fully educated on this point; it is urgent to engraft upon it the very clear feeling that should the port of Cette or any other port be destroyed, that event would have at most the scope of an incident without any influence upon the final result of the war. Let us be victors, and the conquered will pay a high price for the slight damage he may have done along the shore, if it so be that he even had the time to waste there.

In thus disciplining public opinion we are still carrying on the work of preparation for war and consequently are practicing the best of strategy.

Among the factors of the defence, there are surely none more important than those whose mobility gives them an extended field of action, that is torpedo-boats and sub-marines. Few of the elements of naval material in all its complexity have been the subject of discussions so numerous and so excited as these; exalted by some, despised by others, they have rarely found judges impartial and calm enough to define without prejudice their sphere of influence. One who reads carefully all that has been written during the last twenty years upon the function of the torpedo-boat and the sub-marine in future wars will be struck with the chaotic state of ideas on the subject. This observation would be inexplicable if it were not at the same time stated that all these writings, with a few rare exceptions, are the product of the imagination alone; it is therefore not surprising that under fancy's guidance

WAR ON THE SEA.

minds wander. It is still the thread of the military idea which enables one not to go astray and to base conceptions regarding these naval instruments upon the lessons of experience.

It is not enough to say: torpedo-boats and sub-marines are necessary; one should add why, should specify their intended use and the tactics of that use. When the military problem has been thus specified, it will very quickly be perceived that torpedo-boats and sub-marines are the embodiment, in a very remarkable way, of the principle of the defensive-offensive defined by Jomini.

The focussing of these two weapons, the determination of the conditions of war that they should satisfy, their relative value in comparison with the principal forces, the conditions of their utilization alone or in combination, are so many very important problems of detail in the preparation for war. Notably as far as the sub-marine is concerned, the unending verbal quarrels of these latter years, à propos of the different types under trial, would have appeared to all very idle if the determination of the submarine had only been recognized to be an exclusively military problem and not a technical problem in naval architecture.

ADVANCED BASES.

It is part of the preparation for war to specify and enforce in this matter, as in all others, the conditions to be fulfilled. It is not merely the bases of operations in home waters that need to be provided with a seriously organized defence; the advanced bases of the fleet must also be put out of reach of a sudden attack.

The principle itself of these advanced bases is not contestable; no fleet operation in far distant seas is possible without a port where that fleet can be resupplied, repaired and re-enforced after previous operations. An advanced base was already indispensable in Suffren's time, and it was for that reason that he took Trincomalee; in the preceding chapter we have seen the English policy, with the admirable continuity that characterizes it, acquire successively, in every corner of the globe, the supports indispensable to her naval strength.

It is to the highest degree an essential act of the preparation for war to select the advanced bases, to defend them, and to equip them *with a view to a fixed military objective*.

In this way the preparation is so tightly bound to strategy that it is so to speak strategy itself. Outside of many other proofs,

WAR ON THE SEA.

that the Russians had not prepared for war is to be understood from the fact that Port Arthur was very badly chosen as an advanced base and was almost destitute of everything.

War is not prepared for, in fact, if all the contingencies that can arise have not been envisaged, and especially if the means of maintaining in a sure manner, at the advanced base, forces superior to those of the adversary have not been arranged.

It is indispensable to define the conditions that these advanced bases ought to satisfy and which determine their choice; the application to the concrete case of our Indo-Chinese colony might serve as an actual example, and there again it will readily be admitted that half measures are the worst solutions. War does not admit of half-measures; if therefore it requires an advanced base in Indo-China, all the consequences, and they are big, *very big*, of this decision ought to be faced now, in order to satisfy them before war breaks out.

PLANS OF OPERATIONS.

I now come to a subject whose importance will be clearly apparent to all eyes when I say that it concerns plans of operations. We come, in fact, to a class of cares that truly includes all others, since it is their point of departure. The preparation of plans of war is the master key of preparation for war; it is also its skeleton upon which all the matters precedingly enumerated are successively built up. If this method which I have followed had not been that of synthesis, which seems to me best adapted for the comprehension of strategical ideas, I should therefore have begun this chapter by affirming the necessity of a plan of campaign.

It is only reasonable to believe that a planned campaign will result better than one in which decisions are reached under the spur of events. We know, moreover, what military chiefs and writers thought of it, and we will say with Napoleon: "*Nothing succeeds in war except in consequence of a well arranged plan.*"

The political objectives indicated by the government of a country ought to give birth each to a distinct plan, worked out in all its details. For this very reason each plan involves decisions to be taken with a view to concentration of the naval forces. And it is at once perceived that this concentration cannot be dictated by mere geographical requirements, but that it depends upon the adversary's own forces.

WAR ON THE SEA.

A new idea arises: that of number. We know already that the unit force is a squadron; there remains to determine the number of squadrons that the country should possess. This figure flows directly from three data: the estimation of the forces of the probable adversary or adversaries, the plan of operations and the financial resources. The total naval strength of a great nation is therefore not to be controlled by a purely arbitrary decision; it should depend upon considerations than which none are more weighty, and no figure whatever has any value unless it is thus based. Our most recent naval program, in imitation of all the preceding ones, limits to the figure of five squadrons of six ships the total of our naval forces of the line. It neglects to explain the military conception upon which this figure is based, and this is the more regrettable because it would very quickly be perceived that it is quite insufficient.

Concentration ought to be studied with a view to securing the possibility of making the greatest possible effort against the weak point of the enemy. It is therefore the veritable photograph of the plan of operations, and gives a view of the thought which conceived it.

It is thus that England, with the calm audacity of the strong, has distributed her squadrons in such a manner that her conception of the future war is plainly to be perceived.

And since I am speaking of the case of England, I find in it the subject of an interesting remark upon the infinity of the resources and objectives of strategy. By seizing upon Gibraltar, the naval policy of England not only increased her military strength by possession of an exceptionally well situated base of operations; above all she took possession of the key to the gate of the Mediterranean and put an obstacle in the way of all our future attempts at concentration of our forces.

Already we must recognize that the navy of France is not favored by her geographical position; the distance between the two seas that bathe her shores, by separating her bases of operations, is a serious obstacle to the junction of her fleets. This was clearly perceived before La Hogue, when the naval forces of the Mediterranean, stopped by a long series of contrary winds, could never join Tourville and bring to him re-enforcements that would have sensibly diminished his tremendous inferiority.

The conquest of Gibraltar, by a hostile naval power, has very

considerably aggravated these original conditions of inferiority, and it can be said that the history of the unfortunate wars of France against England is also that of the vain attempts to unite the fleets of Toulon with those of the Atlantic. The project of invasion of England in 1759 was abandoned, as was later to be that of 1805, for the same causes.

The squadron of La Clue, set out from Toulon to join that of Conflans, not having got by Lagos, where it was annihilated by the English fleet of Admiral Boscawen, the strategic plan that was wholly based upon this junction crumbled away at the same time, just as that of Napoleon's was to do, when the defeat of Ville-neuve by Nelson destroyed all hope of uniting the Toulon fleet with those of Ganteaume and Missiessy.

To-day conditions are equally unfavorable to us. Our political interests, extending over two seas far apart and separated by a narrow passage guarded by a powerful nation, necessitate the permanent division of our naval forces; but, for that very reason, they are a source of weakness.

At Gibraltar, strong base of operations, English naval strategy unites all the advantages of "interior lines," so well defined by Jomini, which permit meeting our Mediterranean and Atlantic fleets separately and successively, with all the other advantages that an immense superiority of force gives. And yet, we know it from the history of the campaigns of all the great captains, it is the relative value of this superiority that it is the important point to seek for in war; it is by securing it at a decisive point that we can hope to fight England successively.

To suppress Gibraltar is the only way of doing this, not at all by forcibly seizing it, for it would be necessary first to overthrow the English naval power, and that is the very problem we are facing, but by turning its flank. The Inter-Seas canal, by furnishing a permanent communication between the Atlantic and the Mediterranean, takes on the character of an exceptionally great strategic labor for France. By permitting us to bring about at will, under conditions of perfect safety, the junction of all our naval forces, either in the Atlantic or in the Mediterranean, it would reverse positions and give to the French navy, over the British navy, the immense advantage of "*interior lines*."

I shall perhaps have occasion to return some day to this very interesting subject; for the moment, I have merely wished to call

WAR ON THE SEA.

attention to one of the thousand aspects under which this monumental task of preparing for war presents itself. If the reasoning that has guided me has been attentively followed, there should be agreement that I have been led to the preceding conclusion by military exigencies of the most pressing character. To convince the most incredulous it will be enough, I think, to recall that the digging of the Kiel canal is due to motives of the same order as those we have just noted. Without turning up their noses at the economic advantages that they could derive from it, the Germans have above all wished to construct a strategical passage connecting the North Sea with the Baltic and freeing future concentrations of their naval forces from dangerous dependence upon the narrow passages of the Jutland peninsular. This project of an Inter-Seas canal has for many years been the object of the most violent attacks and, what is much worse, of the indifference and apathy of the majority of people. But, I emphatically declare, its execution is a strategic necessity of the first order that has not been properly weighed in the criticisms put forth, and compared with which the most exaggerated expenditures, the most pessimistic estimates regarding its construction, should they reach three milliards, are trifles.

The unfortunate war of 1870 cost us much more dear, five milliards of ransom, not counting milliards for military expenses, all absolutely unproductive.

Though the political management has secured alliances in prevision of such or such a struggle, it would be an error to believe that it is enough to add upon paper the naval forces of the allied powers to obtain the value of the total military strength. History is rich in facts that prove the want of cohesion of motley fleets. The influence of preparation for war is great in this as in all other matters, distributing objectives among the allies and even controlling and regulating their actions in case they must later on co-operate in a single enterprise. On June 5, 1905, the English admiral Lord Charles Beresford wrote the following lines which I submit to the meditations of all: "*I hope that a plan will be arranged for the meeting at sea of the British and American fleets with a view to joint manœuvres. Such an experience would be of immense interest for the two navies, no less than for the two nations, and possibly the world would pay great attention to such a phenomenon.*"

WAR ON THE SEA.

In all that precedes I have taken it for granted that the choice of the system of warfare was made from the beginning. Arrived at this point in our studies, I would not even have need to name it, since for us there can only be considered that single one from which efficient results can be expected, warfare in which masses are brought into play. Nevertheless, it is not necessary to reject without consideration other secondary systems, powerless no doubt to assure by themselves alone the aims of the conflict, but which, as adjuncts to war on a large scale, can under some conditions, play an important part. I refer to commerce destroying and to industrial warfare. An example is afforded by the case of a conflict with Germany.

The configuration of that empire's coasts is such that their blockade by a naval force, were it as formidable as that of Great Britain, is by no means a simple operation. The German admiral de Stosch said in 1888: "*The ports of the North Sea defend themselves. If the beacons are removed from the endless sand banks that change form every year, the most skilful pilots would not dare to risk a ship in those tortuous passages.*"

Admiral Hollmann expressed the same opinion in 1897: "*We have no need of a navy for the defence of our coasts, they are their own defence.*"

These very favorable conditions require as their necessary complement secondary operations of such a nature as to force the German fleet to the necessity of leaving its refuges and itself coming to offer battle.

This result would be surely obtained by closing the entrance of the North Sea to the commercial fleet of Germany by a sort of industrial war made at the opening of hostilities, with so many the more chances of success that the respective geographical situations of the countries lend themselves to it very well. Under penalty of his very life, the Emperor of Germany would not be able to bear the sudden shutting off of the commercial stream that daily nourishes his country; she would be able so much the less to accept it that, an agricultural nation prior to 1870 and consequently self-supporting, she has become industrial and commercial and can no longer do without relations with the outside world. Statistics furnish on this subject very convincing lessons. At the beginning of the last century, the agricultural population of Germany formed more than 80 per cent of the total population. In 1870,

the proportion was still greater than 50 per cent; but in 1882 it had already fallen off to 42 per cent, and was no greater than 30 per cent in 1898. The evolution has been as rapid as evident.

The German war fleet would therefore necessarily go out to join battle, and *moreover it is to prepare for this that the Kaiser has given it an impulse towards the offensive.*

And there once more we see an aggregate of preparatory operations the execution of which evidently cannot be left to chance; all their details are settled in time of peace so that on the outbreak of war the cruisers detailed to fall upon the enemy's commerce know the movement of commercial lines and their stopping points as well as the number and quality of the ships en route.

These farsighted arrangements are always the result of preparation for war.

When the plans of operations are settled in all their details—and when I say details I am evidently referring to the broad principles of strategy, since the unexpected of the battlefield cannot be prepared for in advance—it must not be supposed that one is ready for war. The chiefs who have the responsibility of leading to battle squadrons, or it may be single ships, ought to be provided with war orders indicating to them in the most precise manner the objective of the mission confided to them, as well as the *underlying idea* of the orders that are given to them. I insist upon the preceding expression, for too often instructions are buried in interminable phrases relative to unimportant details, without the motives of the action ordered or the aim that is proposed to be attained being clearly indicated, and it is important that the chief know these in order to insure their good execution.

Above all it is necessary to avoid the vagueness of formulas which envelope with an impenetrable fog the directing *idea*. I shall never forget, in this connection, the impression which was made upon me as a young officer, in the far off time when I was on night guard at the Mourillon arsenal, at Toulon, by reading on the order board this terse phrase: "*In case of fire, the sentinels redouble their vigilance.*" This comes into my mind because, at a critical period of our contemporary naval history, a lucky chance brought to light the fact that certain instructions of war time yield nothing in the matter of triviality to the foregoing instructions in case of fire. The wording of war instructions ought to be brief, clear and precise.

WAR ON THE SEA.

MOBILIZATION.

I have made the most of the important place that concentration of the forces occupies in the work of preparation for war ; but I have assumed, in that very way, that all those forces were ready for action. Such is not the case ; since, for financial, economic and even military reasons, it is impossible to keep the forces continually on a war footing. An important fraction finds itself in the position of reserve during the period of peace. The passage of this class of forces from the position of reserve to that of complete armament is the first act of the period of political tension immediately preceding hostilities or even indistinguishable from them. The powerful interest attached to "mobilization" in the case of land forces is well known. It is no less great in the case of fleets, and the mobilization of the naval reserves is still more complicated perhaps, since here a very important and delicate material is concerned besides the personnel.

It is enough to observe, as evidenced by recent occurrences, the suddenness with which modern wars break out to feel with what care all the stages of this mobilization, as regards material as well as personnel, require to be settled during peace time, so that, at the first signal, the units in reserve may be armed without damage or shock, with the maximum of activity in the minimum of time. It is easily understood that the unexpected cannot play any part in this operation ; and, in fact, naval mobilization is one of the most delicate tasks, if not the most delicate, of preparation for war.

It is not enough that measures are so taken that, in time of peace, the modern ships in reserve are kept in good condition and lose not the least part of their military value ; that they have accordingly, *always in full complement*, the personnel of all the special branches required for their proper maintenance ; that this personnel retains all its military training. It is further necessary that the rest of the personnel, required to put the crews on a war footing, join their respective ships rapidly and surely.

The prompt mobilization of all the forces available for fighting is, it cannot be too often repeated, the decisive act of the preparation for war. On no account, therefore can strategy neglect it, and it is for that reason also that all measures regarding the organization of the personnel are the immediate concern of strategy. This essential truth once recognized, it is immediately perceived that all the much discussed and often vexatious questions con-

WAR ON THE SEA.

cerning this personnel take on a character of simplicity and at the same time of importance which enforces reasonable solutions. It is no longer asked, in short, if such an organization of mechanics, of gunners or of torpedo men, considered apart, would be superior to such another, if the school of gunners is better placed on an old hulk than on a modern battleship, or whether the torpedo school ought to profit by changing from a battleship to a shore station; each of these questions, interesting in itself, is of very little importance in the aggregate, and all ought to be regarded from the view-point of preparation for war, so that their solutions may form a homogeneous structure in which all differences are merged.

Henceforth, when the constitution and organization of the naval personnel are to be studied, and it is the province of strategy alone to determine them, the military objective must be taken as the sole guide.

COMBINED OPERATIONS.

Preparation for war has further in its province the study, in concert with the military authority, of combined operations. The transportation by sea of an expeditionary force and its disembarkation on a hostile shore, particularly if an important army is concerned, have always been very difficult undertakings which under no conditions lend themselves to improvisation. The navy plays in them the important part, first through the preliminary task that it ought to fulfil of suppressing the adverse naval forces and assuring freedom of the sea, then through its responsibility of guaranteeing the expedition against dangers of the sea, of getting ready to land the troops with their material, and finally of maintaining the permanent connection of the army with the bases of operations beyond the sea.

So vast a program evidently can only be executed by means of a close collaboration of all the services concerned.

The two General Staffs, army and navy, should in advance, and with calm reflection, examine and solve all the points of this immense problem; designation of the objectives, evaluation of the military forces necessary to secure at a given point the desired military effect, determination of the number and size of transports, packets or freighters that are to serve to carry the expeditionary army, choice of the points of assembly of the troops for

WAR ON THE SEA.

embarkation and of the port of concentration where the convoy is to form, discussion of the point or points favorable for disembarkation and choice between them, orders of sailing and of convoy, reconnaissance and clearing of the landing places by the naval forces, preparation of the special material for the disembarkation, orders for that disembarkation, etc. I could add more, and more important things.

I will merely mention that another constant care among the first cares in war ought to be to secure a *perfect* knowledge of the material and moral resources of the adversary. *Force* in war is always relative and grows with the weakness of the enemy as well as with its own strength. If the General Staff endeavors to discover the weak points of every nature in the hostile organization, it is also the imperious duty of every commander-in-chief to inform himself in regard to the temperament, character, qualifications and defects of the chiefs of the hostile squadrons that will be opposed to those that he directs.

CONCLUSIONS.

I wish that all that precedes could make others feel as strongly as I do myself what a gigantic labor preparation for war really is; I have been able only to broadly outline the rational method outside of which everything is but fantasy and expedient. But what my pen has been powerless to express, because it is rather something to be divined, is the importance of time in this labor as patient and persevering as an ant's, and the great value of method in constructing that network of close meshes whose every thread is renewed in proportion as it wears without disturbing the general harmony.

This magnificent work, that I have necessarily had to present bit by bit, appears so much the vaster as its details are brought out, it cannot therefore be the work of a day; it requires the devotion of a man's whole life, and the efforts of all together are not too much to bring it to a good conclusion.

The task, already so heavy, is complicated by a financial problem conjoined with the technical problem. In short, war must always be prepared for with limited resources; strategy finds its true justification in the search for success with restricted means. Were it only from the financial point of view, the method of hasty improvisation and of trusting to luck which consists of procuring

things of prime necessity only when a pressing danger, or a threat or war, arises, is absolutely detestable. The millions spent in a few days, as too often we have had to do in the purchase of materials of mobilization and of service, supplies, etc., are very badly utilized, for one is obliged to take whatever is for sale. Nothing, I continue to repeat, can take the place of the methodical, laborious, slow preparatory work of the time of peace; that alone can do a lasting work. It is not merely in the particular case just considered that preparation for war avoids financial waste; it is economical in its principle. It will be enough, in order to give an irrefutable proof of this, to recall that the war of 1898 cost Spain 300,000,000 pesetas and that that of 1904 cost 4,495,000,000 francs to Russia, not including the expenditures on requisitions of the commanders-in-chief that are not yet known. These sums are out of all proportion with those that a sufficient prior military effort would have required. This new proof would suffice by itself alone to demonstrate that good strategy demands preparation for war.

And the same thing is true of tactics. Until now I have neglected to mention the rôle of the commander-in-chief; by giving to him perfect tools, full and trained crews, clear and precise instructions and a clearly designated aim, the service which has prepared for war has done its work; his own then begins. More exactly it has already begun, since it is not at the moment when the battle opens that the chief ought first to exhibit his personal influence. In the preparatory exercises of peace times he should have endeavored to instil into the very souls of all his subordinates the most active element of moral force, confidence; by his personal action, by his professional ability, above all by his *character*, and finally by his activity, he should have inspired the hearts of all with the certainty of victory. Finally he should have made his military plan known sufficiently for his subordinates, on the field of action, to be inspired by it, and to all act together to a common end. And all this is still preparation for war.

That is not yet all. From the top to the bottom of the military hierarchy, among the officers as well as among the men, each in his own sphere ought to be fully conscious of the greatness of his responsibility. Of all moral forces the most effective in war comes from the turning of all individual wills towards a common ideal of national glory and beauty.

Allow me in this connection, to recall a personal memory as lively after the lapse of thirty-five years as on the first day. I was still very young at the time of the terrible year, but yet I was of the age when strong emotions leave an ineffaceable impression on the soul, and I see again the scene as if it were of yesterday. In a great place, before the town hall, is packed an agonized crowd of old men, of women and of children, listening to news from the theater of war read from the balcony by a government official.

In the text of an official telegram, whose phrases resemble the dry crackling of musketry, three words sound forth like a knell of death: "Metz has surrendered!" And from that crowd, over which I felt pass the shiver of a great despair, arises a long cry, as of a wounded beast, of grief and rage at betrayal.

And, in fact, it is truly a whole present and past of betrayals that those three words symbolize.

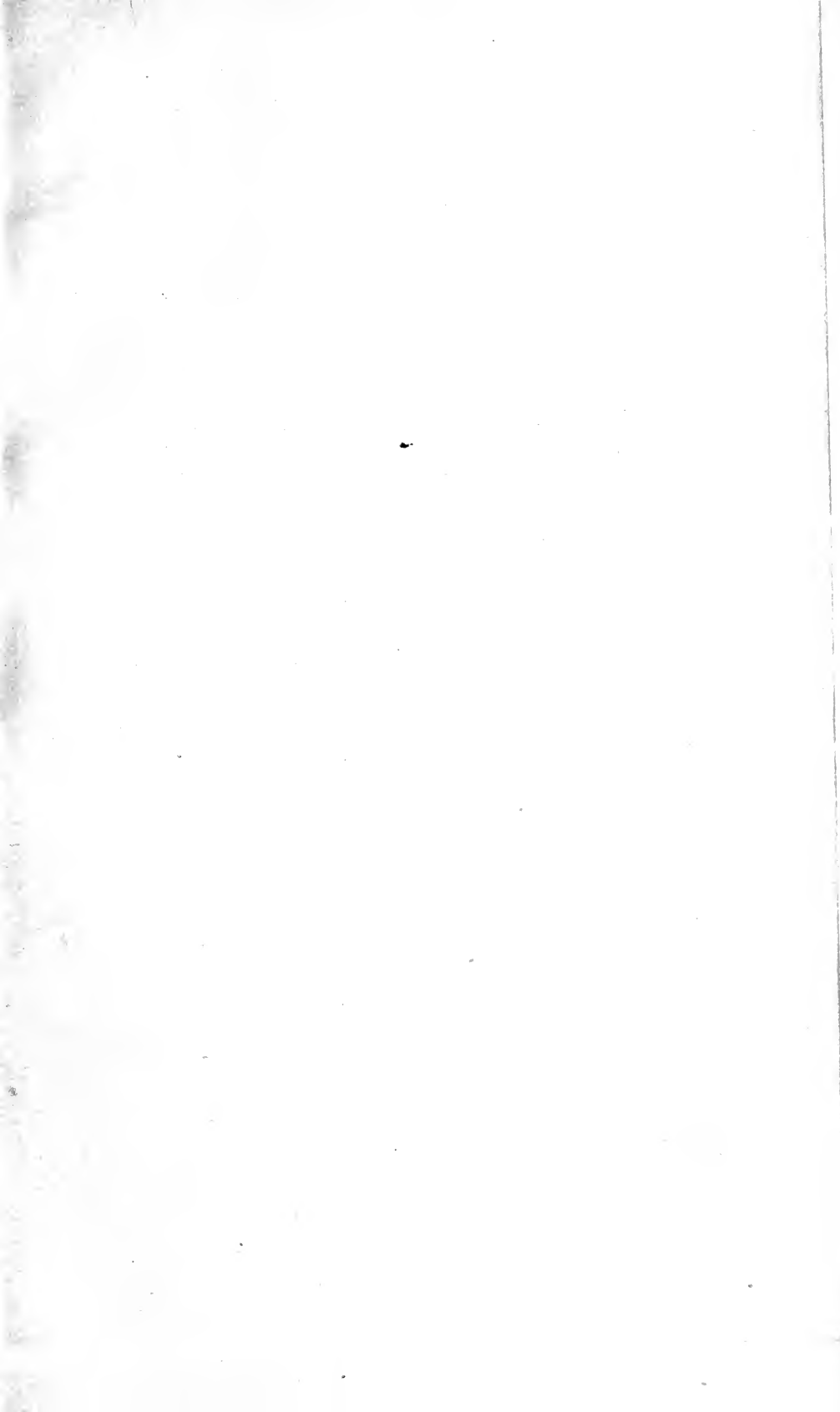
By this I do not merely point to the crime of treason committed by a traitor general, delivering over to the enemy a formidable fortress, and, worse still, a whole active army. I allude especially to that immense aggregate of betrayals in small things, conscious or unconscious, the apathy of some, the carelessness of others, the idleness and indifference of the greater number, the tendency of many to put off till tomorrow what can be done to-day, or to deny dangers because the happiness of days of ease would be vexed by them, to all those passive resistances, so much the more harmful as they are invisible in the mass and which reduce to a minimum the efficiency of the machine. But the machine with which we are busy is preparation for war, that is to say strategy, that is to say tactics, in short, war and the country's safety. These accumulated partial betrayals were the real cause of the disaster of 1870.

It depends therefore upon the humblest servants of the country in the navy, and particularly upon the officers, whether these frictions are to be suppressed; to accomplish it needs only that each person, whatever his function, have his mind constantly bent upon the object, with the sentiment that even the apparently most insignificant gear wheel is indispensable to the efficient working of the whole machine. And, by so doing, each will co-operate in the preparation for war.

I have now come to the end of the chapter on preparation, and with it we close also the book of *basic principles*.

WAR ON THE SEA.

Throughout this book I have tried to bring out a small number of fundamental principles without which victory cannot be hoped for, and among them the one we have last considered dominates all the others with its extraordinary influence. The latin proverb is truer now than ever before! Only strong nations are assured of peace. Thus, in seeking to sum up the teaching of these ten chapters on basic principles in a sort of brief formula like a "Garde à vous," which, at every moment of our career, shall imperiously declare *this* basic principle, I find no better one than: "Metz has surrendered." Remember it!





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